

# MEMORANDUM

State of Alaska

Department of Transportation & Public Facilities  
Division of Program Development

**TO:** John MacKinnon  
Commissioner

**DATE:** January 24, 2019

**THRU** Tammy Kramer, Acting Director  
Program Development

**PHONE NO:** 465-2744

**FAX NO:** 465-6984

**FROM:** Maren Brantner  
STIP Manager

**SUBJECT:** Recommend Approval of AMATS  
2019-2022 TIP

The Anchorage Metropolitan Area Transportation Solutions (AMATS) Policy Committee (PC) approved the AMATS FFY 2019-2022 Transportation Improvement Program (TIP) on December 20, 2018.

Staff recommends a conditional approval based on the following changes. With the next TIP action, all design/construct projects need to have total project costs shown in the TIP. The following TIP Need IDs should be corrected: RDY00002, RDY00008, and RDY00009. If fiscal constraint and/or project schedule does not allow for construction in the fiscally constrained years, construction costs may be shown in the 'estimated funding needs after 2021'. Additionally, the DOT&PF recommends the STIP Need IDs be referenced for those projects that are outside of the AMATS allocation and are programmed in the STIP.

We find that AMATS FFY 2019-2022 TIP meets all the requirements of US Code Title 23, Section 134, meets conformity and is fiscally constrained by the allocations made in the 2018-2021 Statewide Transportation Improvement Program (STIP).

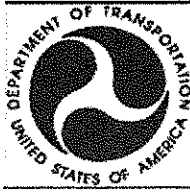
Approved: \_\_\_\_\_

  
John MacKinnon  
Commissioner

Date: 1-30-19

Attachments: AMATS FFY 2019-2022 TIP Transmittal Memo & PC Memo  
AMATS FFY 2019-2022 TIP Tables

CC: Ned Conroy, Community Planner, FTA  
Marie Heidemann, Statewide Planning Chief, ADOT&PF  
Aaron Jongenelen, AMATS Senior Transportation Planner, MOA  
John Lohrey, Statewide Programs Team Leader, FHWA  
Craig Lyon, AMATS Transportation Planning Manager, MOA  
Todd VanHove, Chief, Planning and Admin, Anchorage Field Office, ADOT&PF



## U.S. DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINISTRATION  
ALASKA DIVISION  
709 W. 9<sup>TH</sup> STREET, ROOM 851  
P.O. BOX 21648  
JUNEAU, ALASKA 99802-1648

FEDERAL TRANSIT ADMINISTRATION  
915 SECOND AVENUE, SUITE 3142  
SEATTLE, WASHINGTON 98174

February 15, 2019

Tammy Kramer, Acting Director  
Program Development  
Department of Transportation and Public Facilities  
P.O. Box 1125000  
3132 Channel Drive  
Juneau, AK 99811

Dear Ms. Kramer:

The Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) have received the Anchorage Metropolitan Area Transportation System (AMATS) Air Quality Conformity Analysis and Technical Appendix for the AMATS 2019-2022 Transportation Improvement Program (TIP).

Anchorage is a CO maintenance area with an approved Limited Maintenance Plan (LMP). Anchorage has not had a violation of the CO national ambient air quality standards (NAAQS) since 1996. Under the limited maintenance plan, there is no emissions budget. In order to qualify for the LMP, the Anchorage CO design value must be less than 85% of the NAAQS exceedance level. Analysis of the Anchorage CO data demonstrates that Anchorage is in compliance with the eligibility criteria for its CO limited maintenance plan. Other requirements for the CO maintenance area are also met.

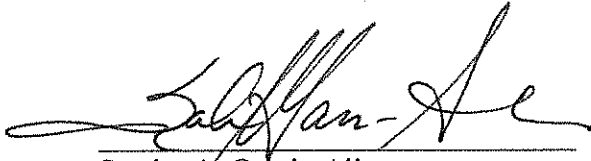
A portion of Eagle River is a PM-10 maintenance area with a Limited Maintenance Plan. The last violation of the PM-10 NAAQS occurred in 1987. The 5-year average Design Value concentration is required to be equal to or below 98  $\mu\text{g}/\text{m}^3$ . The 5-year average DV in Eagle River has met this requirement.

The transportation conformity rule in section 93.105 requires consultation among air and transportation agencies at the local, state, and federal levels. AMATS, state and local air

quality officials, and representatives from Alaska DOT&PF, FHWA, FTA and EPA took part in the consultation process for this current conformity determination.

The FHWA and FTA approve the conformity determination for the AMATS 2019-2022 TIP. If you have any questions, please contact Mr. John Lohrey, FHWA Transportation Planner at (907) 586-7428, or Mr. Ned Conroy, FTA Community Planner at (206) 220-4318.

Sincerely,



Sandra A. Garcia-Aline  
Division Administrator  
Federal Highway Administration

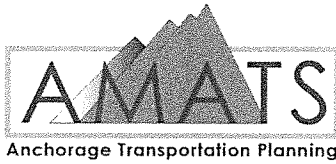
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GEHRKE

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Date: 2019.02.15  
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Linda M. Gehrke  
Regional Administrator  
Federal Transit Administration

Electronically cc:

Craig Lyon, AMATS Coordinator  
Ned Conroy, FTA  
Maren Brantner, STIP Coordinator  
Todd VanHove, Central Region Planning Chief



METROPOLITAN PLANNING ORGANIZATION  
4700 Elmore Road  
Anchorage, Alaska 99507

December 21, 2018

Dave Post, Regional Planning Manager  
Alaska Department of Transportation  
and Public Facilities  
Post Office Box 196900  
Anchorage, Alaska 99519-6900

Dear Mr. Post,

Please accept this memorandum as the formal submittal of the approved AMATS FFY 2019–2022 Transportation Improvement Program (TIP). The Policy Committee adopted both the basic document and the Air Quality Conformity Determination on December 20, 2018.

Please expedite transmittal of this document to the ADOT&PF Headquarters/Juneau office as an amendment to the Alaska Statewide Transportation Improvement Program (STIP). We also request that you forward a copy to the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) for their information.

Your assistance with the development of the AMATS TIP is greatly appreciated. Thank you in advance for your cooperation.

Sincerely,

A handwritten signature in black ink, appearing to read 'Craig Lyon', with a long horizontal flourish extending to the right.

Craig Lyon  
AMATS Coordinator

Enclosures



**A RESOLUTION OF THE AMATS POLICY COMMITTEE  
2019-22 TIP Air Quality Conformity Determination**

**WHEREAS**, AMATS must make an affirmative air quality conformity determination prior to adopting the 2019-22 Transportation Improvement Program (TIP) because the Anchorage bowl area is currently designated as a limited maintenance area for carbon monoxide (CO) and a portion of Eagle River is designated as a limited maintenance area for particulate matter less than ten microns in diameter (PM-10) under the Clean Air Act; and

**WHEREAS**, the conformity analysis report for the TIP has undergone interagency consultation with local, state and federal agencies and has gone through public review in accordance with the AMATS Public Participation Plan; and

**WHEREAS**, the CO design value in the Anchorage remains less than or equal to 7.65 parts per million and the PM-10 design value in Eagle River remains below 98 micrograms per cubic meter and therefore exempts both areas from emission budget tests for those pollutants; and

**WHEREAS**, the transportation control measures in the Anchorage CO and Eagle River PM-10 areas continue to be implemented as required by the State Implementation Plan; and

**WHEREAS**, the TIP is fiscally constrained, was developed using the latest planning assumptions, and prepared according to state and federal air quality conformity regulations; and

**WHEREAS**, the AMATS Technical Advisory Committees have reviewed the report and its findings recommended its approval by the AMATS Policy Committee; and

**NOW THEREFORE, BE IT RESOLVED**, by the AMATS Policy Committee that the AMATS 2019-22 TIP is in conformance with Alaska State Implementation Plan for air quality, meets the conformity requirements outlined in 40 CFR 93 and does not undermine the ability of the Municipality of Anchorage to maintain compliance with the national ambient air quality standards for CO or PM-10.

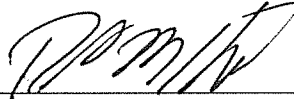
**PASSED AND APPROVED** by the AMATS Policy Committee this 20<sup>th</sup> day of December 2018.

David Kemp, P.E., PMP  
Chair

**ANCHORAGE METROPOLITAN AREA TRANSPORTATION SOLUTIONS  
2019-2022 TRANSPORTATION IMPROVEMENT PROGRAM**

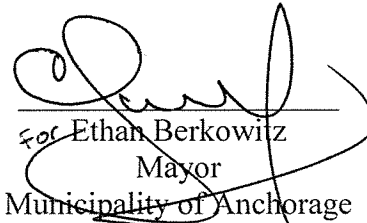
**APPROVED: December 20, 2018**

**by the  
AMATS POLICY COMMITTEE**

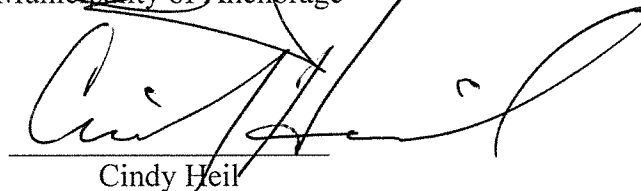


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Dave Kemp, (Chair)  
Regional Director

Alaska Department of Transportation and Public Facilities



\_\_\_\_\_  
for Ethan Berkowitz  
Mayor  
Municipality of Anchorage



\_\_\_\_\_  
Cindy Heil

Air Non-Point & Mobile Sources Program Manager  
Alaska Department of Environmental Conservation

\_\_\_\_\_  
John Weddleton

Member  
Anchorage Municipal Assembly

\_\_\_\_\_  
Pete Petersen

Member  
Anchorage Municipal Assembly

Table 1. Four-Year Program Summary  
AMATS FFY 2019-2022 TIP

PROJECT LOCATION	FEDERAL FISCAL PROGRAMMING YEAR (\$ in Thousands)				4-year total	% of 4-year Non-NHS \$
	October 1 - September 30					
	2019	2020	2021	2022		
<b>Non-National Highway System (Table 2)</b>						
Roadway Improvements without Pavement Replacement Projects	\$6,515	\$20,764	\$14,205	\$19,283	\$60,767	49.9%
Pavement Replacement Projects (Table 7)	\$6,600	\$3,200	\$7,111	\$3,350	\$20,261	16.6%
	\$13,115	\$23,964	\$21,316	\$22,633	\$81,028	
<b>Non-motorized (Table 3)</b>	\$2,400	\$2,000	\$6,450	\$6,000	\$16,850	13.8%
<b>Plans and Studies (Table 4)</b>	\$6,300	\$1,300	\$250	\$0	\$7,850	6.4%
<b>Congestion Mitigation &amp; Air Quality (Table 5)</b>	\$7,545	\$2,830	\$2,830	\$2,830	\$16,035	13.2%
<b>Non-National Highway System Subtotal for Non-NHS roads, non-motorized &amp; CMAQ projects</b>	<b>\$29,360</b>	<b>\$30,094</b>	<b>\$30,846</b>	<b>\$31,463</b>	<b>\$121,763</b>	<b>100.0%</b>
STIP Non-National Highway System Allocation from ADOT&PF's CTP programs [as of 3/14]	\$29,360	\$30,094	\$30,846	\$31,463	\$121,763	
AMATS CMAQ program set aside [as of 3/14]	\$2,255	\$2,311	\$2,369	\$2,428	\$9,363	
<i>STIP Non-NHS Allocation for all projects (including CTP and CMAQ allocation)</i>	\$31,615	\$32,405	\$33,215	\$33,891	\$131,126	
<b>Other Funded Projects within the Municipality of Anchorage</b>						
<b>Highway Safety Improvement Program (Table 8)</b>	\$12,640	\$7,323	\$14,175	\$0	\$34,138	
<b>National Highway System (Table 9)</b>	\$26,000	\$45,000	\$25,000	\$25,000	\$115,500	
<b>Transit Capital FTA Section 5307 to MOA (Table 10)</b>	\$8,166	\$9,821	\$8,121	\$8,121	\$34,229	
<b>Transit Capital FTA Section 5307 to ARRC (Table 10)</b>	\$3,890	\$3,940	\$4,180	\$4,330	\$16,340	
<b>Transit Capital FTA Section 5337 [State of Good Repair] to ARCC (Table 10)</b>	\$600	\$1,700	\$4,300	\$4,300	\$10,900	
<b>TOTAL PROGRAM ALLOCATION = (Non-NHS + NHS + HSIP Set Aside +AMATS Pave./Bridge Refurbish.+ all FTA 5307, 5337, and 5309)</b>	<b>\$80,656</b>	<b>\$97,878</b>	<b>\$86,622</b>	<b>\$73,214</b>	<b>\$338,370</b>	
<b>Other Federal Funded Projects within AMATS (Table 11)</b>	<b>\$71,504</b>	<b>\$108,097</b>	<b>\$77,238</b>	<b>\$863,000</b>	<b>\$1,119,839</b>	
<b>National Highway System Improvements Outside AMATS boundaries, but within the MOA (Table 12)</b>	<b>\$142,712</b>	<b>\$14,732</b>	<b>\$4,150</b>	<b>\$9,150</b>	<b>\$170,744</b>	
<b>TOTAL FEDERAL FUNDING For Transportation Improvements within AMATS &amp; the MOA</b>	<b>\$294,872</b>	<b>\$220,707</b>	<b>\$168,010</b>	<b>\$945,364</b>	<b>\$1,628,953</b>	

Notice to MOA Project Managers / Project Sponsors! If your project includes ITS elements and uses funds from the federal highway trust fund, prior to acquisition, construction, or implementation, you must demonstrate compliance with federal Systems Engineering Analysis requirements. Complete the ADOT&PF Systems Engineering Analysis Checklist, link below, and submit to FHWA through ADOT&PF Central Region Planning.

**Table 2. Roadway Improvements  
AMATS FFY 2019-2022 TIP**

Grandfathered Project	TIP Need ID	PROJECT LOCATION	PROJECT PHASING PLAN	FEDERAL FISCAL PROGRAMMING YEAR (\$in Thousands)						Estimated funding needs after 2024	Est total project cost 2019-2022
				October 1 - September 30							
				2019	2020	2021	2022	2023	2024		
G	2159	<b>O'Malley Road Reconstruction</b> [Seward Highway to Hillside Drive] - Reconstruct the roadway to improve safety and capacity at intersections and improve pedestrian facilities and 3 lane section east of Lake Otis Pkwy, and 5 lane section between Seward Hwy and Lake Otis Pkwy. Landscaping @ 5% of Construction \$ = to be determined. \$1.0M in Design and \$4.3M ROW funding for Phase I in 2015. \$500,000 ROW in 2016 for Phase II. \$12.2M in U/C funding for Phase I in 2017 is A/C into 2016 for a total of \$26.7M. Phase I will receive additional funds of \$4.2M from FFY 2013 GO Bond or other non-AMATS sources of funding such as NHPP or statewide STP funds. Phase II is funded with the remainder of the FFY 2013 GO Bond supplemented by TIP funds.	2019 - ROW 2020 - U/C	\$500	\$18,320	\$8,580	\$0	\$0	\$0	\$0	\$27,400
					← A/C →						
G	29252	<b>Glenn Highway Integrated Corridor Management Study [ICM]</b> - Project will produce a final Concept of Operations for a comprehensive ICM approach to the Glenn Highway operations, to address traffic congestion, including congestion caused by crashes.	2019 - Study	\$400	\$0	\$0	\$0	\$0	\$0	\$0	\$400
G	2174	<b>Abbott Road Rehabilitation</b> [Lake Otis Parkway to Birch Road] - project will increase from 2 to 4 lanes and improve intersections and pedestrian facilities. Project recommended to be developed as a 3R per ADOT's Pre-Construction Manual. \$1.5M in ROW funding is A/C from 2015 into 2014. \$7.7M in U/C funding is A/C from 2017 into 2016.		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	RDY00001	<b>Fireweed Lane Rehabilitation</b> [Spenard Road to Seward Highway] - This project would rehabilitate Fireweed Lane from Spenard Road to the Seward Highway and include a road diet, changing Fireweed from 4 lanes to 3 lanes (2 with a center turn lane). This project would also include non-motorized improvements.	2019 - D 2021 - ROW	\$1,000	\$0	\$2,500	\$0	\$0	\$6,000	\$0	\$3,500
	RDY00002	<b>C Street/Ocean Dock Road Ramp and Intersection Improvements</b> - This project would rehabilitate the C Street/Ocean Dock Road Intersection based on the alternative #3 produced from the C Street/Ocean Dock Road Reconnaissance Study completed in 2018. Project would include non-motorized and drainage improvements.	2019 - D 2021 - ROW	\$500	\$0	\$1,000	\$0	\$0	\$0	\$0	\$1,500
	RDY00003	<b>Spenard Road Rehab</b> [Benson Blvd to Minnesota Dr] - Project will rehabilitate to improve traffic flow. This project would also include non-motorized improvements. Project shall not include improvements to the Minnesota Intersection except ADA requirements on the east side.	2019 - D 2022 - ROW	\$1,500	\$0	\$0	\$2,500	\$0	\$50,000	\$0	\$4,000
	RDY00004	<b>Dr. Martin Luther King Jr Avenue Extension</b> - Extend Dr. Martin Luther King Jr Avenue from Elmore Road to the south end of Piper Drive. The new roadway would include non-motorized improvements.	2019 - D 2021 - ROW	\$1,500	\$0	\$1,500	\$0	\$0	\$0	\$13,000	\$3,000
	RDY00005	<b>Rabbit Creek Road Reconstruction</b> [Seward Highway to Goldenview Drive] - Project would reconstruction Rabbit Creek Road from the Seward Highway to Goldenview Drive with a center turn lane and includes non-motorized improvements.	2022 - D	\$0	\$0	\$0	\$1,500	\$0	\$500	\$9,800	\$1,500
	RDY00006	<b>East 4th Ave Signal and Lighting Upgrade</b> [A St to Ingra St] - Reconstruct the traffic signal and street lighting system along 4th Ave between A St and Ingra St. Sidewalk and curb ramps will also be replaced.	2019 - D 2020 - D/ROW 2022 - U/C	\$500	\$324	\$0	\$7,000	\$0	\$0	\$0	\$7,824
	RDY00007	<b>Potter Drive Rehabilitation</b> [Arctic Blvd to Dowling Road] - This project would rehabilitate Potter Drive from Arctic Boulevard to Dowling Road and include non-motorized improvements.	2020 -D 2022 - ROW	\$0	\$500	\$0	\$150	\$0	\$3,500	\$0	\$650
	RDY00008	<b>Transportation Demand Management Projects</b> - Funding for implementation of project #PLN0008 the Transportonation Demand Management study of the University Medical District.	2022 - D	\$0	\$0	\$0	\$5,003	\$0	\$0	\$0	\$5,003

\*Projects are not listed in priority order.



**Table 2. Roadway Improvements  
AMATS FFY 2019-2022 TIP**

Grandfathered Project	TIP Need ID	PROJECT LOCATION	PROJECT PHASING PLAN	FEDERAL FISCAL PROGRAMMING YEAR (\$in Thousands)						Estimated funding needs after 2024	Est total project cost 2019-2022
				October 1 - September 30							
				2019	2020	2021	2022	2023	2024		
	<b>RDY00009</b>	<b>Seward Highway to Glenn Highway Connection PEL Design</b> - Implement the projects identified as part of the PEL done for the Seward Highway to Glenn Highway Connection.	2022 - D	\$0	\$0	\$0	\$1,000	\$0	\$0	\$0	\$1,000
	<b>RDY00010</b>	<b>Mountain Air Drive</b> [Rabbit Creek Road to E. 164th Ave] - Extend Mountain Air Drive from Rabbit Creek Road to E. 164th Ave. Recommend separated pathway. Purpose: Circulation, access, and safety.	2020 - D 2022 - ROW	\$0	\$1,000	\$0	\$1,500	\$0	\$0	\$11,000	\$2,500
	<b>RDY00011</b>	<b>Safety Improvement Program (Traffic Count Support)</b> - Collect traffic data within the AMATS area completed by the ADOT&PF Central Region Highway Data Section and MOA Traffic Department Data Section.	2019-22 Programming	\$615	\$620	\$625	\$630	\$635	\$640	\$645	\$2,490
	<b>RDY00012</b>	<b>Pavement Replacement Program</b> - This program will provide a single funding source for several pavement overlay and/or replacement projects. Improvements are also expected to include ADA and some existing curb and sidewalk repair. May include those projects listed in Table 7 or other priorities.	2019-22 Programming	\$6,600	\$3,200	\$7,111	\$3,350	\$0	\$0	\$0	\$20,261
		The contingency list of projects for each year will consist of the following year's projects.	ANNUAL TOTALS	<b>\$13,115</b>	<b>\$23,964</b>	<b>\$21,316</b>	<b>\$22,633</b>	<b>\$635</b>	<b>\$60,640</b>	<b>\$34,445</b>	<b>\$81,028</b>
		STIP ALLOCATIONS FOR ALL TYPES OF NON-NHS PROJECTS = CTP.		\$29,360	\$30,094	\$30,846	\$31,463	\$24,955	\$24,955	\$24,955	\$121,763
		Approximate percentage (%) for roadways		<b>22%</b>	<b>69%</b>	<b>46%</b>	<b>61%</b>			4-year average	<b>50%</b>
		Approximate percentage (%) for pavement replacement projects		<b>22%</b>	<b>11%</b>	<b>23%</b>	<b>11%</b>			4-year average	<b>17%</b>

\*Projects are not listed in priority order.

**Table 3. Non-Motorized  
AMATS FFY 2019-2022 TIP**

Grandfathered Project	TIP Need ID	PROJECT LOCATION	PROJECT PHASING PLAN	FEDERAL FISCAL PROGRAMMING YEAR (\$in Thousands)							Estimated funding needs after 2024	Est total project cost 2019-2022
				October 1 - September 30								
				Carryover	2019	2020	2021	2022	2023	2024		
G	29257	<b>Dimond Center Pedestrian and Transit Improvements</b> - Multiphase effort focusing on pedestrian, bicycle, transit and travel way improvements. Primary improvements includes sidewalk connectivity, bicycle infrastructure, pedestrian and bicycle signals/signage, traffic calming techniques, lighting and other safety related infrastructure to ensure compliance with ADA.		\$2,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
G	26628	<b>Bicycle Plan Project Implementation</b> - Project would sign, stripe, and mark bike lanes or shoulders on existing roadways within the AMATS boundary area to create a safe, connected network of bicycle facilities as identified in the Anchorage Bicycle plan. Project consists of nominated projects Core Bicycle Network Phase I-III.		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
G	26629	<b>Pedestrian Plan Project Implementation</b> - Project would improve pedestrian safety and construct missing links as identified in 2007 Anchorage Pedestrian Plan. FFY16 funded with non-AMATS sources.		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	NMO00001	<b>Downtown Trail Connection</b> - Project will construct a connection between the Tony Knowles Coastal Trail to the Ship Creek Trail in downtown Anchorage.	2019 - D 2021 - ROW	\$0	\$300	\$0	\$1,000	\$0	\$0	\$0	\$4,000	\$1,300
	NMO00002	<b>Fish Creek Trail Connection</b> [Northern Lights Blvd to the Tony Knowles Coastal Trail] - This project will construct a connection of the Fish Creek Trail to the Tony Knowles Coastal Trail.	2020 - D 2022 - ROW	\$0	\$0	\$500	\$0	\$500	\$0	\$0	\$3,000	\$1,000
	NMO00003	<b>Tudor Road Pathway Connection</b> [Chugach Foothills Connector Phase II to Regal Mountain Drive] - This project would construct a connection from the phase II of the Chugach Foothills Connector to Regal Mountain Drive.	2019 - D 2021 - C	\$0	\$100	\$0	\$500	\$0	\$0	\$0	\$0	\$600
	NMO00006	<b>Potter Marsh Improvements</b> - This project would make improvements to the Potter Marsh southern parking facility.	2019 - D 2021 - U/C	\$0	\$250	\$0	\$1,250	\$0	\$0	\$0	\$0	\$1,500
	NMO00007	<b>Old Seward Highway Pathway [DeArmoun Road to Rabbit Creek Road]</b> - This project would construct a pathway along Old Seward Highway from DeArmoun Road and connect to the termini of the non-motorized improvement(s) done as part of the Rabbit Creek Road [Seward Highway to Goldenview Drive] Reconstruction project.	2019 - D 2021 - ROW	\$0	\$500	\$0	\$1,000	\$0	\$0	\$0	\$2,500	\$1,500
	NMO00008	<b>Anchorage Areawide Pathway and Trails Pavement Replacement</b> - This program will provide a single funding source for several pathway/trail pavement replacement projects. May include those projects listed in Table 7 or other priorities.	2019-22 - D/U/C	\$0	\$1,250	\$1,500	\$2,700	\$5,500	\$0	\$0	\$0	\$10,950
		<b>The contingency list of projects for each year will consist of the following year's projects.</b>	<b>Section Totals</b>	<b>\$2,000</b>	<b>\$2,400</b>	<b>\$2,000</b>	<b>\$6,450</b>	<b>\$6,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$9,500</b>	<b>\$26,350</b>
			STIP ALLOCATIONS FOR ALL TYPES OF NON-NHS PROJECTS = CTP		\$29,360	\$30,094	\$30,846	\$31,463	\$24,955	\$24,955	6 year total=	<b>\$171,673</b>
			Approximate percentage (%) for all Non-Motorized projects		8%	7%	21%	19%	0%	0%	4-year Avg=	13.8%

\*Projects are not listed in priority order.

**Table 4. Plans and Studies**  
**AMATS FFY 2019-2022 TIP**

Grandfathered Project	TIP Need ID	PROJECT LOCATION	PROJECT PHASING PLAN	FEDERAL FISCAL PROGRAMMING YEAR (in Thousands)						Estimated funding needs after 2024	Est total project cost
				October 1 - September 30							
				2019	2020	2021	2022	2023	2024		
		<b>Studies and Plans</b>									
<b>G</b>	<b>PLN00001</b>	<b>AMATS MTP</b> - Funding for the Municipality of Anchorage AMATS Metropolitan Transportation Plan.	2020 - Plan	\$0	\$800	\$0	\$0	\$0	\$800	\$0	\$1,600
	<b>PLN00002</b>	<b>TSMO Strategic Implementation Plan</b> - This study will develop the AMATS Transportation Systems Management & Operations (TSMO) strategic plan, and will provide overall direction, goals, and strategic outcomes for the program. The project will translate AMATS strategic elements (including 2040 MTP Implementation Plan, ITS Implementation Plan, CMP Implementation Plan, and Transportation Demand Management Plan) into a combined Five-Year TSMO implementation plan document that will provide overall direction and strategic outcomes, with specific projects with related cost estimates, services and activities.	2020 - Study	\$0	\$500	\$0	\$0	\$0	\$0	\$0	\$500
	<b>PLN00003</b>	<b>Seward Highway to Glenn Highway Connection Planning and Environmental Linkages (PEL) Study</b> [20th Ave to Glenn Hwy/Airport Heights Intersection] - The intent of this PEL is to define a vision for the future of this connection, identify environmental and resource concerns and opportunities in the study area, and use the information to develop reasonable alternatives through consultation with the affected agencies and the public.	2019 - Study	\$5,000	\$0	\$0	\$0	\$0	\$0	\$0	\$5,000
	<b>PLN00004</b>	<b>2040 Secondary Street Deficiency Analysis and Prioritization</b> - This project will conduct an area-specific review of existing collector and local street networks that connect or run parallel to major arterials in the Anchorage Bowl. This review will identify deficiencies and needed additional local and collector street connections, intersection and access improvements, right-of-way widths, and pedestrian connections.	2019 - Study	\$150	\$0	\$0	\$0	\$0	\$0	\$0	\$150
	<b>PLN00005</b>	<b>Chugach Way Area Transportation Element Study</b> - This project would provide recommendations on the transportation elements developed as part of the Chugach Way Small Area Plan.	2019 - Study	\$150	\$0	\$0	\$0	\$0	\$0	\$0	\$150
	<b>PLN00006</b>	<b>92nd Ave Extension Reconnaissance Study</b> - This project will look at the challenges with extending 92nd Ave from Old Seward Highway to King Street and offer recommendations based on safety, congestion, non-motorized improvements, and freight mobility.	2021 - Study	\$0	\$0	\$250	\$0	\$0	\$0	\$0	\$0
	<b>PLN00007</b>	<b>Port of Alaska Multimodal Improvements Study</b> - This project will study and make recommendations on how to improve the Ocean Dock Road connection to the Port of Alaska.	2019 - Study	\$250	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	<b>PLN00008</b>	<b>University Medical District Transportation Demand Management (TDM) Study</b> - Project will complete a TDM study, evaluating transportation demand throughout the entire University Medical District and make recommendations for funding future project.	2019 - Study	\$750	\$0	\$0	\$0	\$0	\$0	\$0	\$750
		<b>The contingency list of projects for each year will consist of the following year's projects.</b>	<b>ANNUAL TOTALS</b>	<b>\$6,300</b>	<b>\$1,300</b>	<b>\$250</b>	<b>\$0</b>	<b>\$0</b>	<b>\$800</b>	<b>\$0</b>	<b>\$7,850</b>
			STIP ALLOCATIONS FOR ALL TYPES OF NON-NHS PROJECTS = CTP	\$29,360	\$30,094	\$30,846	\$31,463	\$24,955	\$24,955	6 year total=	<b>\$171,673</b>
	Notice to MOA Project Managers/Project Sponsors! If your project includes ITS elements and uses funds from the federal highway trust fund, <u>prior to acquisition, construction, or implementation</u> , you must demonstrate compliance with federal Systems Engineering Analysis requirements. Complete the ADOT&PF Systems Engineering Analysis Checklist and submit to FHWA through ADOT&PF Central Region Planning.										

\*Projects are not listed in priority order.

Table 5. Congestion Mitigation Air Quality (CMAQ)  
AMATS FFY 2019-2022 TIP

Grandfathered Project	TIP Need ID	PROJECT LOCATION	PROJECT PHASING PLAN	FEDERAL FISCAL PROGRAMMING YEAR (Sin Thousands)						Estimated funding needs after 2024	Est total project cost
				October 1 - September 30							
				2019	2020	2021	2022	2023	2024		
		<b>SIP-Mandated Projects and Programs</b>									
	CMQ00001	<b>Anchorage Ridesharing/Transit Marketing</b> - This project funds the Municipal Share-A-Ride program which promotes, subsidizes, and contract manages an area-wide vanpool commuter service; and a comprehensive public transportation marketing effort.	2019-2022 Programming	\$900	\$900	\$900	\$900	\$900	\$900	\$900	\$6,300
	CMQ00002	<b>Air Quality Public &amp; Business Awareness Education Campaign</b> - The goal of this program is to further inform the public about air quality issues and what steps people may take to reduce pollution.	2019-2022 Programming	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$2,100
			<b>Section Totals</b>	<b>\$1,200</b>	<b>\$1,200</b>	<b>\$1,200</b>	<b>\$1,200</b>	<b>\$1,200</b>	<b>\$1,200</b>	<b>\$1,200</b>	<b>\$8,400</b>
		<b>STIP Non-National Highway System Allocation from ADOT&amp;PF's CMAQ program [as of 3/14]</b>		\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$8,400
		<b>Programs</b>									
	CMQ00003	<b>Arterial Roadway Dust Control</b> - Magnesium chloride (MgCl2) dust palliative will be applied to approximately 70 miles of high volume State and Municipal roadways prior to and after spring sweeping. FFY16 funded with non-AMATS sources.	2019-2022 Implementation	\$200	\$200	\$200	\$200	\$200	\$200	\$200	\$1,400
	CMQ00004	<b>Traffic Control Signalization</b> - Program would provide proactive efficiencies with better/more updated signal timing plans to address intersection congestion and improve air quality. Funding supports development of Traffic Management Center and emergency vehicle and low priority transit signal preemption.	2019-2022 Programming	\$350	\$350	\$350	\$350	\$350	\$350	\$350	\$2,450
	CMQ00005	<b>Bus Stop &amp; Facility Improvements</b> - This projects funds the upgrade of facility and bus stop sites to meet both the federally mandated Americans with Disabilities Act [ADA] requirements and the operational needs. Typical bus stop improvements include bus shelters, benches, trash receptacles, landscaping, grading, pacing, utility relocations, lighting, curb adjustments, drainage, constructing paths, and construction/reconstruction of turnouts. Typical facility improvements include upgrades, rehabilitation, and construction/reconstruction not limited to safety, security, facility equipment, structures, underground storage tanks, parking lots, sidewalks, and drainage. Table 5 of CMAQ funds supplement FTA funds in project 4, 8, and 11 on Table 10. FFY19-2021 AMATS funding is supplemented with CMAQ funding outside the AMATS allocation.	2019-2022 Implementation	\$2,989	\$1,265	\$1,321	\$1,379	\$1,439	\$1,502	\$1,568	\$11,463
	CMQ00006	<b>Multimodal trip planner and smartphone application</b> - project will provide for operation of multimodal trip planner and smartphone app to provide carpool, vanpool, and bicycle commuter matching, transit and shuttle schedules, and multimodal directions.	2019-2022 Implementation	\$70	\$70	\$70	\$70	\$70	\$70	\$70	\$490
	CMQ00007	<b>Transit Fleet Replacement Operations</b> - This project provides funding for replacement and potential operational assistance of the Public Transportation Department. The fleet consists of 13-passenger vans, MV-1, 22' and 40' buses that provide service to RideShare, AnchorRIDES, and People Mover. Vehicles will be replaced based on the FTA defined useful life and the People Mover Fleet Management Plan. Table 5 of CMAQ funds supplement FTA funds in project 2, 6, and 10 on Table 10. FFY19-2021 AMATS funding is supplemented with CMAQ funding outside the AMATS allocation. \$1.75M in 2019 funding should be prioritized toward electric fleet vehicles if at all possible.	2019-2022 - Purchase	\$4,936	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$16,936
			<b>Section Totals</b>	<b>\$7,545</b>	<b>\$2,830</b>	<b>\$2,830</b>	<b>\$2,830</b>	<b>\$2,831</b>	<b>\$2,830</b>	<b>\$2,830</b>	<b>\$32,739</b>
		<b>The contingency list of projects for each year will consist of the following year's projects.</b>	<b>ANNUAL TOTALS</b>	<b>\$7,545</b>	<b>\$2,830</b>	<b>\$2,830</b>	<b>\$2,830</b>	<b>\$2,831</b>	<b>\$2,830</b>	<b>\$2,830</b>	<b>\$32,739</b>
		<b>STIP ALLOCATIONS FOR ALL TYPES OF NON-NHS PROJECTS - CTP</b>		\$29,360	\$30,094	\$30,846	\$31,463	\$24,955	\$24,955	6 year total=	<b>\$171,673</b>
		<b>Approximate percentage (%) for all Congestion Mitigation/Air Quality (CMAQ) projects</b>		26%	9%	9%	9%	11%	11%	4-year Avg=	13.2%
<small>Notice to MOA Project Managers/Project Sponsors! If your project includes ITS elements and uses funds from the federal highway trust fund, prior to acquisition, construction, or implementation, you must demonstrate compliance with federal Systems Engineering Analysis requirements. Complete the ADOT&amp;PF Systems Engineering Analysis Checklist and submit to FHWA through ADOT&amp;PF Central Region Planning.</small>											

\*Projects are not listed in priority order.

**Table 6. Transportation Alternatives Program  
AMATS FFY 2019-2022 TIP**

Grandfathered Project	TIP Need ID	PROJECT LOCATION	PROJECT PHASING PLAN	FEDERAL FISCAL PROGRAMMING YEAR (\$in Thousands)				Est total project cost
				October 1 - September 30				
				2019	2020			
G	TAP00001	<b>Chugach Foothills Connector, Phase II</b> - Project will construct a multi-use path on Tudor Road between Regal Mountain Drive and Campbell Airstrip Road.	2019 - D 2020 - C	\$200	\$1,700			\$1,900
G	TAP00002	<b>AMATS Mountain View Drive Pathway Reconstruction</b> - Project will reconstruct a multi-use pathway connecting Peterkin Avenue with Mountain View Drive between Bliss Street and North Bunn Street.	2019 - U/C	\$750	\$0			\$750
G	TAP00003	<b>Anchorage Arewide Trails Rehabilitation</b> - Project will rehabilitate the Fish Creek trail from Kiwanis Fish Creek Park to Barbara Street.	2019 - U/C	\$0	\$0			\$0
			<b>Section Totals</b>	<b>\$950</b>	<b>\$1,700</b>	<b>\$0</b>		<b>\$2,650</b>

\*Programmed amounts includes a 20% match.

**Table 7. Pavement Replacement Program  
AMATS FFY 2019-2022 TIP**

<b>2019 - 2022 TIP, Pavement Replacement Projects</b>	
	Project Location
1	Airport Heights Road - Debarr Road to Glenn Hwy
2	Boundary Ave - Boniface Pkwy to Oklahoma
3	Brayton Drive - Dearmoun Road to - O'Malley Road
4	Elmore Rd - Huffman Rd to O'Malley Rd
5	Fireweed Ln - Spenard Road to Arctic Blvd
6	Hiland Rd - MP 0 to MP 3.2
7	Post Rd - 3rd Ave to Reeve Blvd
8	Rabbit Creek Rd - Old Seward Hwy to Hillside Dr
9	Upper Huffman - Hillside Dr to Toilsome Hill Dr
10	Reeve Blvd - 5th Ave to Post Road
11	DeArmoun Road - Hillside Drive to Canyon Road
	*Projects not in priority order
	Pavement Replacement Annual Totals shown in Table 2

<b>2019 - 2022 TIP, Pathway and Trail Pavement Replacement Projects</b>	
	Project Location
1	20th Ave Sidewalk - Bragaw Street to Tikishla Park
2	Debarr Road - Boniface to Muldoon (southside sidewalk)
3	Airport Heights Road - Debarr Road to Glenn Hwy
4	Northern Lights Blvd - Lois Drive to Minnesota Drive (southside pathway)
5	Jewel Lake Pathway - Raspberry Road to International Airport Road
	*Projects not in priority order
	Pavement Replacement Annual Totals shown in Table 3

**Table 8. Highway Safety Improvement Program (HSIP)  
AMATS FFY 2019-2022 TIP**

TIP Need ID	PROJECT LOCATION	PROJECT PHASING PLAN	FEDERAL FISCAL PROGRAMMING YEAR (\$ in Thousands)						Estimated funding needs after 2024	Est total project cost
			October 1 - September 30							
			2019	2020	2021	2022	2023	2024		
HSP0001	Jewel Lake Road: 88th St to Strawberry TWLTL (Two way left turn lane)	2015 - D 2017 - R 2018 - U/C	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
HSP0002	CR Traffic Safety Corridor Left Turn Lanes	2019 - U/C	\$2,700	\$0	\$0	\$0	\$0	\$0	\$0	\$2,700
HSP0003	Minnesota / Seward Hwy / Tudor / Muldoon Lighting Improvements	2018 - D/R 2019 - U/C	\$5,590	\$0	\$0	\$0	\$0	\$0	\$0	\$5,590
HSP0004	Tudor Rd at C St and Dimond Blvd at C St - Right Turn Channelization	2017 - D/R 2020 - U/C	\$0	\$6,733	\$0	\$0	\$0	\$0	\$0	\$6,733
HSP0005	Minnesota Dr Weaving Lane	2017 - D 2019 - U/C	\$3,519	\$0	\$0	\$0	\$0	\$0	\$0	\$3,519
HSP0006	Minnesota Dr Guide Sign Upgrades	2017 - D/U 2019 - C	\$321	\$0	\$0	\$0	\$0	\$0	\$0	\$321
HSP0007	Seward Hwy Rockfall Mitigation	2018/2019 - D 2021 - C	\$500	\$0	\$14,175	\$0	\$0	\$0	\$0	\$14,675
HSP0008	Arctic Blvd Railroad Signal Relocation	2019 - D 2020 - U	\$10	\$590	\$0	\$0	\$0	\$0	\$0	\$600
<b>Total</b>			<b>\$12,640</b>	<b>\$7,323</b>	<b>\$14,175</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$34,138</b>

\*Projects in this list fall outside the AMATS allocation and are not in priority order. They have not been scored or ranked by AMATS.

**Table 9. National Highway System (NHS)  
AMATS FFY 2019-2022 TIP**

TIP Need ID	PROJECT LOCATION	PROJECT PHASING PLAN	FEDERAL FISCAL PROGRAMMING YEAR (\$in Thousands)				Estimated funding needs after 2021	Est total project cost
			October 1 - September 30					
			2018	2019	2020	2021		
NHS0001	<b>Anchorage Glenn Highway Muldoon Road Interchange Reconstruction</b> - Reconstruct interchange at Muldoon and Glenn Highway.	2018 - C	\$0	\$0	\$0	\$0	\$0	\$0
NHS0002	<b>Seward Highway Dowling Road Interchange Rehabilitation</b> - Project will improve the Dowling Road roundabouts, the associated highway ramps, and make other improvements as needed to enhance safety and increase traffic flow.	2018 - D	\$1,000	\$0	\$0	\$0	\$14,000	\$15,000
NHS0003	<b>Seward Highway O'Malley Road to Dimond Boulevard Reconstruction</b> - This project funds the design and ROW purchase for the final segments of this project reconstructing the Seward Highway from Dimond Boulevard to O'Malley Road and includes an underpass to connect 92nd Avenue (west of the Seward Highway) with Academy Drive (east of the Seward Highway), and construction is funded under Need ID 30691.	2019 - D/ROW	\$0	\$20,000	\$0	\$0	\$0	\$20,000
NHS0004	<b>Seward Highway O'Malley Road to Dimond Boulevard Reconstruction Phase II</b> - This is the second phase of the Seward Highway project, and will reconstructs the Seward Highway from Dimond Boulevard to O'Malley Road. Project includes an underpass to connect 92nd Avenue (west of the Seward Highway) with Academy Drive (east of the Seward Highway). The design and first construction phase are under Need ID 29731.		\$0	\$0	\$0	\$0	\$76,500	\$76,500
NHS0005	<b>Pavement and Bridge Rehabilitation</b> - Crack sealing, surface treatment drainage, signage, guardrail, illumination, and other refurbishments to prolong the life of road pavement and bridges and their safety related structures. Project includes NHS Lane Delineators, Destination & Distance Signing, Pavement Markings and Signalization, Abandoned Vehicle Program, Road Surfacing and Transfer, Road Surface Treatments, and improve curb ramps to meet ADA standards (in coordination with Need ID 30397). The scope does not include landscaping or other elements inconsistent with a pavement preservation focus. This is a DOT&PF central region wide program with approximately \$25M going to projects within the AMATS area on an annual basis with a majority going to the NHS.	2018-2021+ - All Phases	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$125,000
The contingency list of projects for each year will consist of the following year's projects. (Note: Table is not shown in priority order. These projects have no been ranked by AMATS. )			\$26,000	\$45,000	\$25,000	\$25,000	\$115,500	\$236,500

\*Projects in this list fall outside the AMATS allocation and are not in priority order. They have no been scored or ranked by AMATS.



**Table 10. Transit  
AMATS FFY 2019-2022 TIP**

TIP Need ID	PROJECT LOCATION	PROJECT PHASING PLAN	FEDERAL FISCAL PROGRAMMING YEAR (in Thousands)								Estimated funding needs after 2024	Est total project cost
			October 1 - September 30									
			Carryover	2019	2020	2021	2022	2023	2024			
TRN00001	<b>Preventative Maintenance/Capital Maintenance</b> - FTA [Federal Transit Administration] allows grantees to use capital funds for overhauls and preventative maintenance. FTA assistance for those items is based on a percentage of annual vehicle maintenance costs.	2019 - 2022 - Implementation	\$0	\$4,500	\$4,500	\$4,500	\$4,500	\$4,500	\$4,500	\$4,500	\$4,500	\$31,500
TRN00002	<b>Fleet Replacement/Expansion</b> - This project funds the fleet expansion and replacement for the AnchorRIDES paratransit service, as well as the fixed route fleet.	2019 - 2022 - Implementation	\$0	\$200	\$200	\$200	\$200	\$200	\$200	\$200	\$200	\$1,400
TRN00003	<b>ADA Complementary Paratransit Services</b> - Costs associated with ADA paratransit programs are eligible for this funding. The project funds the ADA paratransit eligibility process with a transportation skills assessment and a travel training program for people who could benefit from individualized instruction regarding how to independently ride People Moved buses. May also be used to purchase AnchorRIDES trips.	2019 - 2022 - Implementation	\$0	\$400	\$400	\$400	\$400	\$400	\$400	\$400	\$400	\$2,800
TRN00004	<b>Bus Stop Improvements/1% Section 5307 Transit Improvements</b> - This project funds the upgrade of bus stop sites to meet both the federally-mandated Americans with Disabilities Act [ADA] requirements and the operational needs. Typical improvements include bus shelters, benches, trash receptacles, landscaping, grading, paving, utility relocations, lighting, curb adjustments, drainage, constructing paths, and construction/reconstruction of turnouts. Table 10 FTA funds supplement CMAQ funds for the Bus Stop & Facility Improvements project in Table 5.	2019 - 2022 - Implementation	\$0	\$25	\$25	\$25	\$25	\$25	\$25	\$25	\$25	\$175
TRN00005	<b>ITS/Automated Operating System/Management Information Systems</b> - This projects funds information systems necessary for efficient management of the public transportation system. Typical projects include: Geographical Information Systems [GIS] capabilities, upgrades to the automated maintenance system, refueling, and inventory system; a new computerized dispatch system; and upgrades to the scheduling/run-cutting process, customer information and telephone communications system, and desktop computers. This project also funds staff and capital resources to provide project oversight and capital for ITS for all modes of public transportation services. Provide day to day operational support to all ITS projects.	2019 - 2022 - Purchase	\$0	\$1,700	\$1,700	\$0	\$0	\$0	\$0	\$0	\$0	\$3,400
TRN00006	<b>Fleet Improvement/Support Equipment/Support Vehicle</b> - This project funds improvements to existing transit and paratransit fleets. Typical projects include a ticket reader and issue attachment, which issues passenger passes on the bus; security systems; transit/signal improvements for headway enhancements; mechanical equipment and other improvements for facilities; mobile display terminals' and vehicle communications, radios and locations systems. This project also funds the purchase of replacement vehicles and equipment to support operation of the transit system. Typical purchases include pickup racks, maintenance trucks with special equipment, supervisor vehicles, shift change vehicles, fork lifts, sweepers, and bus access snow removal equipment.	2019 - 2022 - Purchase	\$0	\$145	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$3,145
TRN00008	<b>Transit Centers/Support Facilities</b> - This project supports an on-going effort to provide major transit facilities key areas of the city and major destinations. The Anchorage Comprehensive Plan and 2040 Land Use Plan (LUP) identified neighborhood, town, regional commercial, and city centers that function as focal points for community activities with a mix of retail, residential, and public services and facilities. Anchorage Talks Transit coordinated with the LUP and implemented a frequent bus network along transit supportive development corridors. These corridors should provide pedestrian connections to surrounding neighborhoods and transit. Existing and future facility improvements along these corridors and in areas like Midtown, Downtown, U-Med, Dimond Center and Muldoon, are vital to the implementation of these community planning documents.	2019 - 2022 - Implementation	\$0	\$150	\$750	\$750	\$750	\$750	\$750	\$750	\$750	\$4,650
TRN00009	<b>Operating Assistance</b> - Section 5307 operating assistance for fixed route, demand responsive, and/or Microtransit public transit service.	2019 - 2022 - Implementation	\$0	\$300	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$6,300
<b>subtotal FTA Section 5307 &amp; 5340</b>			<b>\$0</b>	<b>\$7,420</b>	<b>\$9,075</b>	<b>\$7,375</b>	<b>\$7,375</b>	<b>\$7,375</b>	<b>\$7,375</b>	<b>\$7,375</b>	<b>\$7,375</b>	<b>\$53,370</b>

\*Projects in this list fall outside the AMATS allocation and are not in priority order. They have no been scored or ranked by AMATS.

**Table 10. Transit  
AMATS FFY 2019-2022 TIP**

TIP Need ID	PROJECT LOCATION	PROJECT PHASING PLAN	FEDERAL FISCAL PROGRAMMING YEAR (in Thousands)							Estimated funding needs after 2024	Est total project cost	
			October 1 - September 30									
			Carryover	2019	2020	2021	2022	2023	2024			
TRN00010	<b>Section 5310 Enhanced Mobility of Seniors &amp; Individuals w/ Disabilities.</b> - Projects may include purchasing buses and vans; wheelchair lifts, ramps, and securement devices; transit-related information technology systems including scheduling/routing/one-call systems; mobility management programs; and acquisition of transportation services under a contract, lease, or other arrangement. Other activities may include travel training; volunteer driver programs; building an accessible path to a bus stop, including curb-cuts, sidewalks, accessible pedestrian signals or other accessible features; improving signage or way-finding technology; providing same day service or door-to-door service; purchasing vehicles to support new accessible taxi, ride-sharing and/or vanpooling programs; and mobility management programs.		\$0	\$208	\$208	\$208	\$208	\$208	\$208	\$208	\$208	\$1,456
TRN00011	<b>Section 5339 Bus and Bus Facilities Program</b> - This program includes capital projects to replace, rehabilitate and purchase buses, vans, and related equipment, and to construct bus-related facilities, including technological changes or innovations to modify low or no emission vehicles or facilities.		\$0	\$538	\$538	\$538	\$538	\$538	\$538	\$538	\$538	\$3,766
	<b>subtotal FTA section 5307, 5310, 5316, 5317, 5340 Transit funding to the MOA</b>		\$0	\$8,166	\$9,821	\$8,121	\$8,121	\$8,121	\$8,121	\$8,121	\$8,121	\$58,592
	<b>Alaska Railroad - FTA Section 5307 (Rail Tier) Funds</b>											
10	<b>1% Transit Security on the Alaska Railroad Corporation projects</b>	2019 - 2022 - Implementation	\$0	\$120	\$120	\$150	\$150	\$150	\$150	\$150	\$150	\$990
11	<b>Preventive Maintenance</b> - This project partially funds statewide maintenance costs of passenger vehicle railcars and locomotives. Preventive maintenance is defined as all activities, supplies, materials, labor, services and associated costs required to preserve or extend the functionality and serviceability of the asset.	2019 - 2022 - Implementation	\$0	\$3,450	\$3,500	\$3,500	\$3,500	\$500	\$3,500	\$3,500	\$3,500	\$21,450
12	<b>1% Associated Transit Enhancements</b> - can include benches, landscaping, and other transit related amenities.	2019 - 2022 - Implementation	\$0	\$120	\$120	\$130	\$130	\$135	\$135	\$140	\$140	\$910
13	<b>Track Rehab</b> - Rail and tie rehabilitation within AMATS boundaries.	2019 - 2022 - Implementation	\$0	\$200	\$200	\$400	\$550	\$700	\$400	\$400	\$400	\$2,850
	<b>Radio System</b> - Replace and/or upgrade radio system equipment and communication components.	2019 - 2022 - Implementation	\$0	\$0	\$0	\$0	\$290	\$400	\$350	\$0	\$0	\$1,040
	<b>subtotal FTA Section 5307 (Rail Tier) Transit funding to Railroad</b>		\$0	\$3,890	\$3,940	\$4,180	\$4,330	\$1,885	\$4,535	\$4,190	\$4,190	\$26,200
	<b>Alaska Railroad - FTA Section 5337 (State of Good Repair) Funds</b>											
14	<b>Track Rehab</b> - Rail and tie rehabilitation within AMATS boundaries.	2019 - 2022 - Implementation	\$0	\$100	\$0	\$400	\$400	\$400	\$400	\$400	\$400	\$2,100
15	<b>Preventive Maintenance</b> - This project partially funds statewide maintenance costs of passenger vehicle railcars and locomotives. Preventive maintenance is defined as all activities, supplies, materials, labor, services and associated costs required to preserve or extend the functionality and serviceability of the asset.	2019 - 2022 - Implementation	\$0	\$500	\$1,700	\$3,900	\$3,900	\$2,000	\$3,900	\$3,600	\$3,600	\$19,500
	<b>subtotal FTA Section 5337 (SGR) funding to Railroad</b>		\$0	\$600	\$1,700	\$4,300	\$4,300	\$2,400	\$4,300	\$4,000	\$4,000	\$21,600
	<b>Alaska Railroad - FTA Section 5337 (SGR) Funds</b>		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	<b>subtotal FTA Section 5337 funding to Railroad</b>		\$0	\$600	\$800	\$4,300	\$4,300	\$2,400	\$4,300	\$4,000	\$4,000	\$21,600
	<b>subtotal FTA Sections 5307 (Rail Tier) &amp; 5337 Transit funding to ARRC</b>		\$0	\$4,490	\$5,640	\$8,480	\$8,630	\$4,285	\$8,835	\$8,190	\$8,190	\$47,800
	<b>Total Transit Program (FTA {5307+5337})</b>		\$0	\$12,656	\$15,461	\$16,601	\$16,751	\$12,406	\$16,956	\$16,311	\$16,311	\$106,392
	<i>The Municipality of Anchorage's Transportation Improvement Program (TIP) process is used to satisfy the public participation process of the Program of Projects (POP) that is required in U.S.C. Section 5307. The POP as presented is the proposed Program of Projects and will also be the final Program of Projects unless amended.</i>											

\*Projects in this list fall outside the AMATS allocation and are not in priority order. They have no been scored or ranked by AMATS.

**Table 11. Other Federal, State, and Local Funded Projects within the AMATS Area  
AMATS FFY 2019-2022 TIP**

TIP Need ID	PROJECT LOCATION	PROJECT PHASING PLAN	Funding Source	FEDERAL FISCAL PROGRAMMING YEAR (\$in Thousands)					Estimated funding needs after 2021	Est total project cost
				October 1 - September 30						
				Carryover	2018	2019	2020	2021		
OFS00001	<b>Anchorage Port Modernization Project (APMP). Deducted from the 2019 number is \$20M received from the state.</b>	2018-2021 Programming	State GF GO Bond	\$108	\$70,000	\$53,000	\$74,000	\$863,000	\$0	\$1,060,108
OFS00002	<b>AK094 &amp; AK105 - Construction &amp; Road Improvements @ APU.</b>	2018 - D 2019 - ROW/U 2020 - C	Earmark	\$0	\$1,004	\$1,030	\$3,238	\$0	\$0	\$5,272
OFS00003	<b>People Mover Transportation, Community, and System Preservation Program Winter City Pedestrian Safety &amp; Bus Stop Improvements-</b> project will improve safety, accessibility, and maintenance of existing pedestrian facilities and bus stops during winter months. [Federal share only]		FHWA Grant	\$0	\$0	\$0	\$0	\$0	\$0	\$0
OFS00004	<b>Campbell Tract Facility Alternate Entrance Alignment -</b> Relocate the CTF entrance road 260' to align with East 68th Avenue.	2018/19 - D 2019 - C	FLAP	\$0	\$500	\$3,000	\$0	\$0	\$0	\$3,500
OFS00005	<b>Transitioning to Electric Battery-Powered Buses with Infrastructure Upgrades -</b> Project will upgrade electric infrastructure in Anchorage's Bus Barn and Maintenance Building to accommodate electric buses.	2019 - C	FTA Grant	\$0	\$0	\$1,067	\$0	\$0	\$0	\$1,067
OFS00006	<b>Glenn Highway/Hiland Road to Artillery Road Reconstruction -</b> Add a 3rd lane to both northbound and southbound Glenn Highway. Improvements at Hiland Road and Artillery Road Interchanges on the Glenn Highway. Replace Eagle River bridges with capacity for pathway and future HOV lanes. First construction phase will be northbound improvements. FFY 2013 GO Bond funding = \$35M.	2019 - C		\$0	\$0	\$50,000	\$0	\$0	\$0	\$50,000
				<b>\$108</b>	<b>\$71,504</b>	<b>\$108,097</b>	<b>\$77,238</b>	<b>\$863,000</b>	<b>\$0</b>	<b>\$1,119,839</b>

\*Projects in this list fall outside the AMATS allocation and are not in priority order. They have not been scored or ranked by AMATS.

Table 12. NHS/Non-NHS Improvements outside AMATS within the MOA  
AMATS FFY 2019-2022 TIP

TIP Need ID	PROJECT LOCATION	PROJECT PHASING PLAN	Funding Source	FEDERAL FISCAL PROGRAMMING YEAR (Sin Thousands)					Estimated total funding needs after 2021	Estimated total project cost
				October 1 - September 30						
				Carryover	2018	2019	2020	2021		
OUT0001	<b>Whittier Tunnel: Maintenance and Operations</b> - Federal-aid eligible portion of Whittier tunnel and approaches, maintenance and operations.	2018-2021 - C	NHS	\$0	\$4,150	\$4,150	\$4,150	\$4,150	\$4,150	\$20,750
OUT0002	<b>Drainage Improvements for the Anton Anderson Memorial (Whittier) Tunnel</b> - This project will provide driving surface and drainage improvements and install traffic control devices.	2018 - U/C	NHS	\$0	\$14,600	\$0	\$0	\$0	\$0	\$14,600
OUT0003	<b>Anton Anderson Memorial (Whittier) Tunnel</b> - Project consists of improvement to the driving surface and rail bed as well as replacement of toll facility and other equipment.	2019 - D 2021 - C	NHS	\$0	\$0	\$500	\$0	\$5,000	\$0	\$5,500
OUT0004	<b>Seward Highway MP 75-90 Ingram Creek to Girdwood Road and Bridge Rehabilitation</b> - The project includes rehabilitation of the highway including passing lanes, and parking accommodations from just north of Twenty Mile River to the Alyeska Highway and construction of three replacement bridges within this segment at Glacier Creek (bridge #639), Virgin Creek(bridge #638), and Petersen Creek (bridge #636). Project also includes rehabilitation of three miles of highway near the southern termini of the Project including construction of passing lanes and the rehabilitation of the Ingram Creek Bridge near the southern termini of the project. Final construction of middle segment will occur as project Need ID 30569	2018- U/C	NHS	\$0	\$89,500	\$0	\$0	\$0	\$0	\$89,500
OUT0005	<b>INHT PORTAGE CURVE MULTI-MODAL CONNECTOR (FLAP)</b> - The United States Forest Service (USFS) in cooperation with the State of Alaska Department of Transportation & Public Facilities (DOT&PF) & the Federal Highway Administration (FHWA) is proposing construction of a multi-modal pathway adjacent to the Seward Highway from Ingram Creek (MP 75) through the Portage Curve to the Twentymile River (MP 82). The proposed pathway will improve the health and quality of life for both residents and Alaska visitors by providing separated pathways that connect to the Iditarod National Historic Trail (INHT), Portage Valley trail of Blue Ice, and many other recreation opportunities.	2018 - D 2019 - C	FLAP/TAP	\$0	\$2,000	\$10,082	\$0	\$0	\$0	\$12,082
OUT0006	<b>Crow Creek Road Mile Point 4-5 (Milepost 4.3 - 4.95)</b> - Both road and bridge improvements to address identified deficiencies and arrest further degradation of the facilities. Road improvements will include stabilizing with highly frost susceptible material , reshapement and regrade, drainage. Bridge improvements will consist of replacing timber planks at abutments, reinforce concrete footings, rip rap armoring, replacement/repair of approach rails, bridge signage, and clearing of brush to restore safe sight distance.	2018 - D/C	FLAP/TAP	\$0	\$762	\$0	\$0	\$0	\$0	\$762
OUT0007	<b>Seward Highway MP 99-105 Bird and Indian Improvements</b> - Design and construct Seward Highway improvements. May include possible bypass of Bird and Indian. Project includes passing lanes and bike/ped trail.	2018 - U/C	NHS	\$0	\$30,100	\$0	\$0	\$0	\$0	\$30,100
OUT0008	<b>Seward Highway MP 105-115 Passing Lanes Indian to Potter</b> - The project includes improvements in the Windy Corner area of the Seward Highway to consisting of highway realignment, wildlife viewing turnouts, and railroad relocation as needed. Project would coordinate construction of auxiliary lanes and other safety improvements funded through HSIP.	2018- D	NHS	\$0	\$1,600	\$0	\$0	\$0	\$71,500	\$73,100
OUT0009	<b>Seward Highway: Seward at Alyeska Highway Improvements</b> - Construct a divided intersection on the Seward Hwy at the Alyeska Hwy to allow queuing for left-turning vehicles.		OSF	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>ANNUAL TOTALS</b>				<b>\$0</b>	<b>\$142,712</b>	<b>\$14,732</b>	<b>\$4,150</b>	<b>\$9,150</b>	<b>\$75,650</b>	<b>\$246,394</b>

\*Projects in this list fall outside the AMATS allocation and are not in priority order. They have no been scored or ranked by AMATS.

**AIR QUALITY CONFORMITY DETERMINATION  
FOR THE  
2019-2022 ANCHORAGE  
TRANSPORTATION IMPROVEMENT PLAN**

Prepared By:

Municipality of Anchorage  
Department of Health and Human Services  
Air Quality Section

November 29, 2018

## INTRODUCTION AND BACKGROUND

The federally recognized local agency for transportation planning is Anchorage Metropolitan Area Transportation Solutions (AMATS). AMATS is updating the Anchorage Transportation Improvement Plan (TIP) to include transportation projects scheduled for implementation between 2019 through 2022. The 2019-2022 TIP will maintain compliance with federal regulations requiring that TIPs (transportation plans with four-year outlook) be updated every two years.

Clean Air Act Amendments require that federally funded transportation plans be consistent with the State Implementation Plan (SIP) for state-wide maintenance of federal air quality standards. This conformity determination was performed to ensure that plans and projects within the 2019-2022 TIP do not hinder the continued maintenance of National Ambient Air Quality Standards (NAAQS) via the control strategies and commitments specified within the Alaska SIP.

The Alaska SIP contains limited maintenance plans for both carbon monoxide (CO) and PM<sub>10</sub>\* air pollutants within areas of the Municipality of Anchorage. EPA allows demonstration of conformity in such Limited Maintenance Areas (LMA) to be based on analysis of air monitoring data rather than demonstrating, through modeling, which projected transportation emissions will be under the emission budget established in the SIP. LMAs do not have set emissions budgets.

This document confirms the continued eligibility of Anchorage's Limited Maintenance Area status for CO and PM<sub>10</sub>, and documents that Transportation Control Measures (TCMs) required by the SIP continue to be implemented.

Conformity requirements are outlined in federal regulation 40 CFR 93. These regulations describe who the regulation applies to, when and how conformity determinations are to be performed, and the consultation process required between the MPO, federal, state and local agencies.

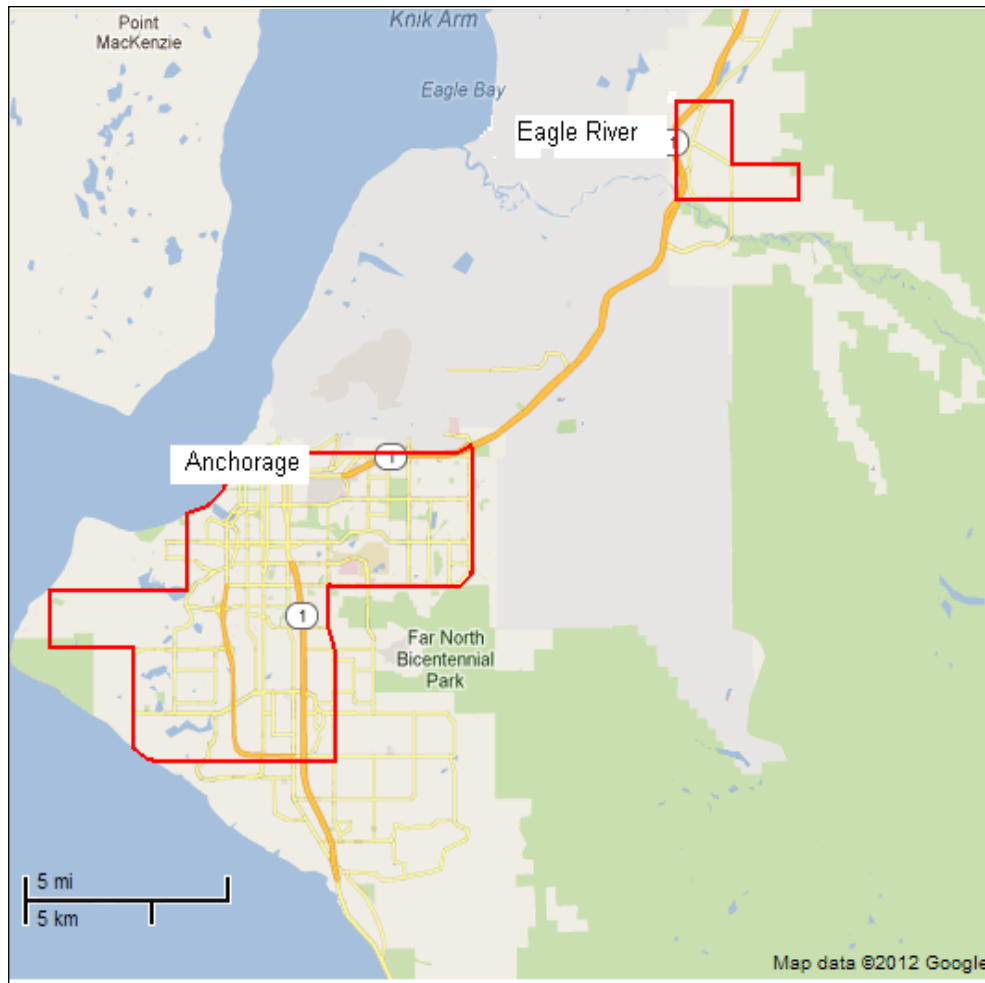
This conformity determination builds on the analysis performed for the Interim 2035 Metropolitan Transportation Plan (MTP) and approved by the AMATS in August of 2014. Air quality data through 2017 has been included in this report.

Part 1 of this report will describe the conformity analysis performed for the Anchorage CO Limited Maintenance Area. Part 2 will address conformity for the Eagle River PM<sub>10</sub> Limited Maintenance Area.

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\* PM<sub>10</sub> is particulate matter consisting of particles that are 10 microns or less in aerodynamic diameter. Such particles are isolated from air by passing a sampled airstream through a size-selective inlet which removes larger than desired particles from the airstream.

Figure 1.1  
Anchorage CO and Eagle River PM-10 Limited Maintenance Areas



### Interagency Consultation

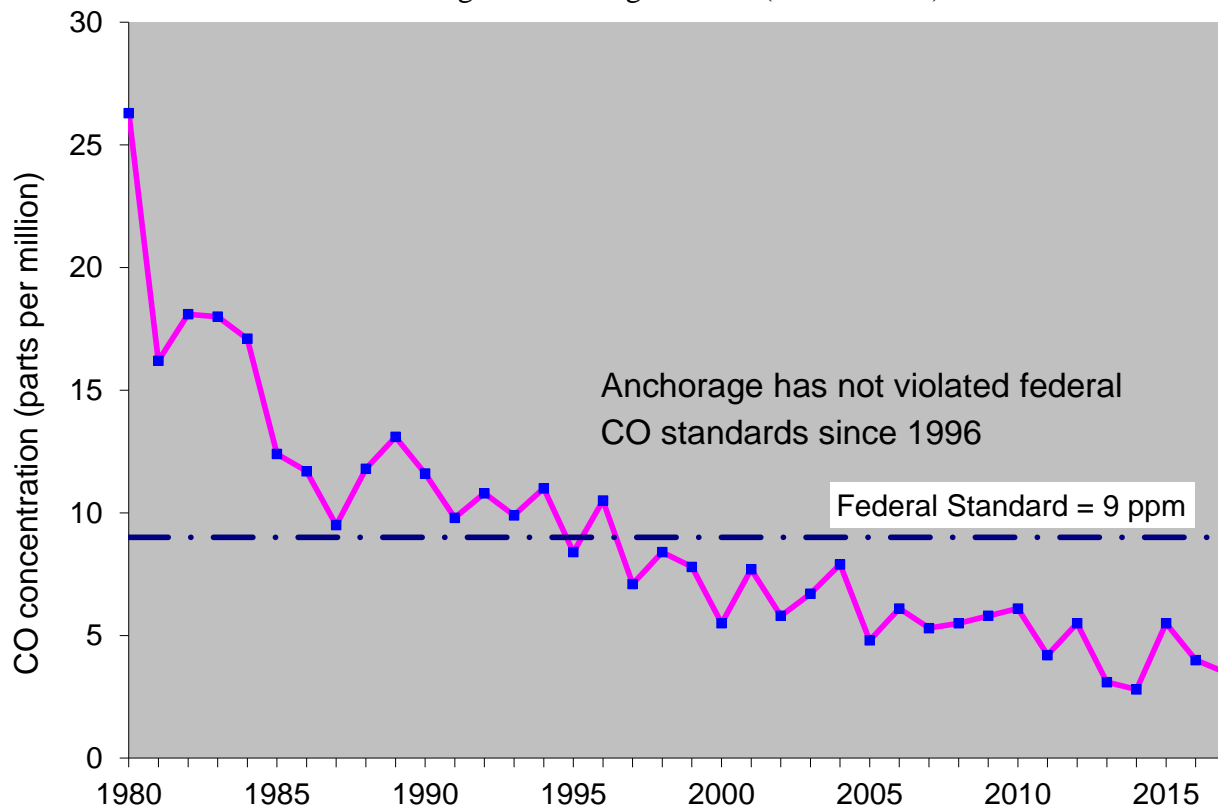
AMATS, state and local air quality officials, and representatives from the Alaska Department of Transportation, the Federal Highway Administration and the US Environmental Protection Agency took part in the consultation process for this current conformity determination in August 2018, consistent with the administrative requirements of the transportation conformity rules. AMATS staff agreed to document continued eligibility for the Anchorage CO and Eagle River PM<sub>10</sub> limited maintenance plans to demonstrate maintenance of air quality goals consistent the Alaska State Implementation Plan (SIP), and also affirm that the review process for the 2019-2022 Anchorage Transportation Improvement Plan has, and will continue to be conducted in a manner consistent with conformity transportation planning requirements. The transportation conformity rules require maintenance of air quality control measures contained in the SIP, an assurance that the transportation plan is fiscally constrained, use of the latest planning assumptions, and adherence to the process of interagency and public review. The 2019-2022 Anchorage Transportation Improvement Plan (TIP) and this conformity determination report have been prepared and will be reviewed consistent with these requirements.

## PART 1: CONFORMITY ANALYSIS FOR THE ANCHORAGE CO MAINTENANCE AREA

### 1.1 Anchorage CO Attainment Status

Anchorage was first identified as experiencing high levels of ambient CO concentrations in the early 1970s. In the early 1980s as many as 50 violations of the national ambient air quality standard (NAAQS) were measured in a single year. However, in the past three decades there has been a steady decline in ambient CO due to improvements in motor vehicle emission control technology. Local control programs such as carpooling and vanpooling programs and public awareness programs that encourage motorists to reduce cold start CO emissions by using engine block heaters prior to starting have also contributed to emission reductions. CO concentrations have declined by over 70% since the 1980s and there have been no violations of the NAAQS since 1996. The trend in CO concentrations is shown in Figure 1.2.

Figure 1.2  
Trend in Annual 2nd Maximum 8-hour CO Concentration at  
Anchorage Monitoring Stations (1980 – 2017)



In February 2004, on behalf of the Municipality of Anchorage, the State of Alaska requested that the EPA re-designate Anchorage from a nonattainment area for CO to an area that has attained the standard. This request was accompanied by a maintenance plan that showed Anchorage should continue to maintain compliance with the NAAQS. The EPA approved that plan in June 2004, and re-designated the nonattainment area as the Anchorage CO Maintenance Area, signifying concurrence the Anchorage has attained compliance with the CO NAAQS.



The CO Maintenance Plan has been amended several times since 2004. On May 2, 2014 the EPA approved the Anchorage Carbon Monoxide Limited Maintenance Plan which streamlines the air quality conformity demonstration process ([79 FR 11707](#)).<sup>†</sup> Under the Limited Maintenance Plan (LMP) option, an emissions budget test is not required because maintenance of the eligibility criteria to qualify for the LMP assures a very low potential to exceed the NAAQS. However, the local metropolitan planning organization (i.e. AMATS) must still adhere to the administrative procedures for conformity with transportation plans and state implementation plans. These include the requirements to complete interagency consultation in accordance with 40 CFR Part 93.112, and to fulfill the public consultation process in accordance with 23 CFR Part 450. In addition the MPO must adhere to the requirements for fiscal constraint of transportation plans and improvement plans consistent with 23 CFR Part 450, and ensure that all transportation plans provide for the timely implementation of transportation control measures as committed to in the SIP. In order to assure that highway or transit projects do not cause or contribute to localized violations for CO, ‘hot-spot’ analyses are performed in accord with 40 CFR 93.123. Also, sponsors/owners of projects expected to create high localized concentrations must supply written commitments to mitigation measures prior to conformity determinations consistent with 40 CFR 93.125. Although the transportation conformity rule (40 CFR Part 93) does not require AMATS to demonstrate current compliance with the limited maintenance plan eligibility criteria, AMATS has done so for this conformity determination based on prior recommendation from the interagency consultation team which reviewed the conformity analysis for the Interim 2035 Metropolitan Transportation Plan.

## **1.2 Compliance with CO Limited Maintenance Area Eligibility Criteria**

Under the LMP there is no requirement to project emissions over the maintenance period in order to demonstrate conformity with the CO emission budget. EPA policy outlined in the Oct 6, 1995 Memorandum by Joseph Paisie titled, Limited Maintenance Plan Option for Nonclassifiable CO Nonattainment Areas, states that if an area is at or below 85 percent of exceedance levels, continuation of transportation control measures already in the SIP should provide adequate assurance of maintenance over the applicable 10-year maintenance period. When EPA approves a limited maintenance plan, the agency is concluding that an emissions budget may be treated as essentially non-constraining for the length of the maintenance period because it is unreasonable to expect that such an area will experience so much growth in that period that a violation of the CO NAAQS would result. In order to qualify for the CO LMP option, a non-attainment or maintenance area must have a design value that is equal to or less than 7.65 ppm (85 percent of the CO NAAQS exceedance level) based on 8 consecutive quarters of data.<sup>‡</sup> The design value for the area must continue to be at or below 7.65 ppm until the time of final EPA action on the plan. The EPA approved the Anchorage Carbon Monoxide Limited Maintenance Plan effective May 2, 2014.

The CO design value (DV) for the 8-hour CO NAAQS is the highest annual second maximum non-overlapping 8-hour concentration during the most recent two years. Table 1-1 shows the design values for all active Anchorage monitoring sites. The highest design value recorded within the limited maintenance area must be 7.65 ppm or less. The locations of CO monitoring sites are shown in figure 1.3. The Garden site in the Airport Heights neighborhood of Anchorage is the only CO site operating since 2015; all others have been discontinued.

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<sup>†</sup> The Anchorage CO Maintenance Plan is included as part of the Alaska Air Quality Control Plan or SIP. Thus, an amendment of the CO Maintenance Plan requires an amendment of the larger SIP document. All SIP amendments are subject to approval by the EPA.

<sup>‡</sup> A design value is the historical maximum concentration of an air pollutant for an area when determined in the same or commensurate manner as the NAAQS allowing for direct comparison. The 8-hour, CO design value is determined by examining the annual second maximum rolling, 8-hour concentration at each monitoring site over a two-year period. For each site, the higher of the two values is the design value for that site for that two-year period. The highest design value among the individual sites is the design value for the limited maintenance area as a whole.

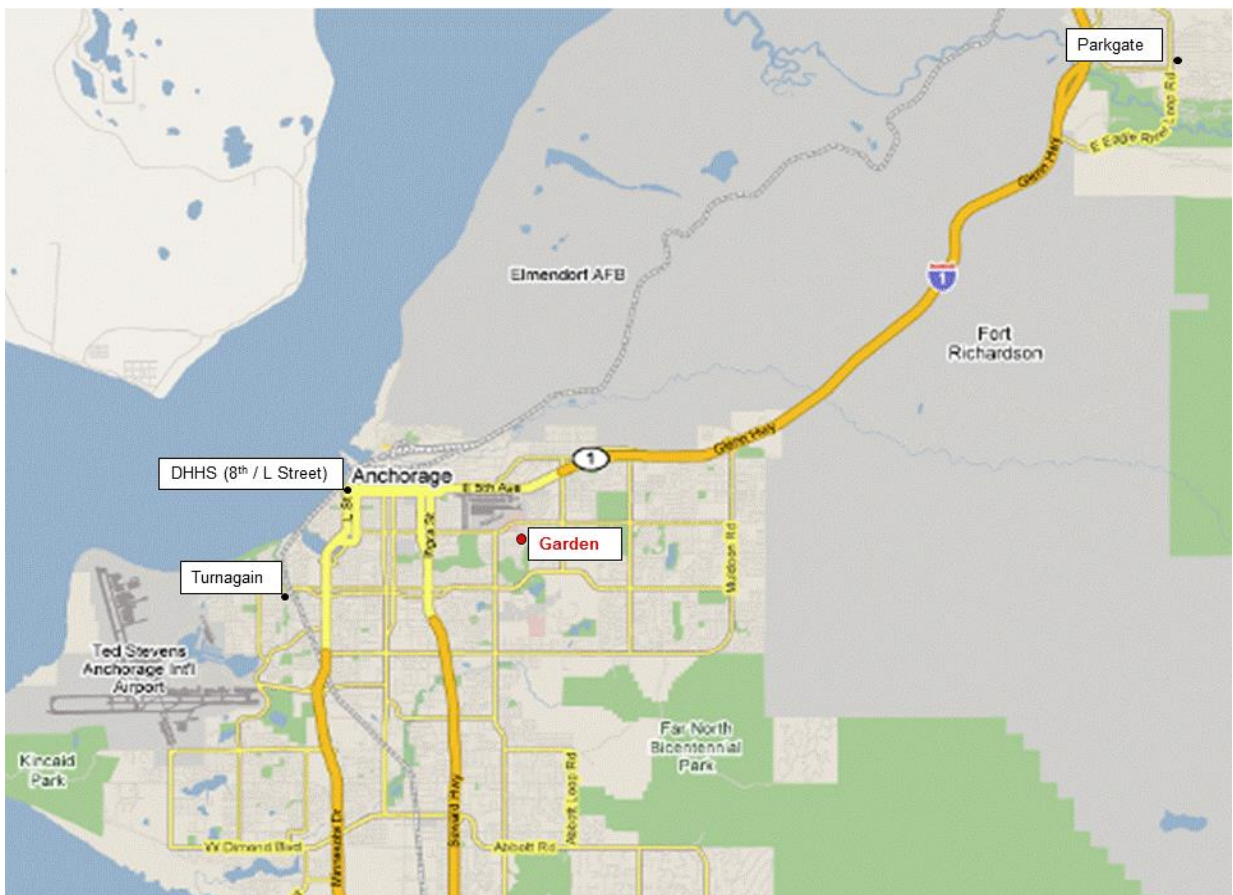
Analysis of the Anchorage CO data from within the Anchorage CO Limited Maintenance Area demonstrates that Anchorage is in compliance with the eligibility criteria for its CO limited maintenance plan.

Table 1.1  
Anchorage CO Design Values by Year

	Garden 20200018	Turnagain 20200048	DHHS 20200052	<b>DV</b>
2005	6.4	7.9		<b>7.9</b>
2006	4.8	6.1		<b>6.1</b>
2007	4.3	6.1		<b>6.1</b>
2008	3.8	5.5	3.1	<b>5.5</b>
2009	4.4	5.8	3.6	<b>5.8</b>
20010	4.4	6.1	3.6	<b>6.1</b>
2011	3.6	6.1	2.8	<b>6.1</b>
2012	4.3	5.5	2.8	<b>5.5</b>
2013	3.1	4.0		<b>4.0</b>
2014	3.1	3.1		<b>3.1</b>
2015	2.8			<b>2.8</b>
2016	3.0			<b>3.0</b>
2017	3.5			<b>3.5</b>

Analysis of the Anchorage CO data from within the Anchorage CO Limited Maintenance Area demonstrates that Anchorage is in compliance with the eligibility criteria for its CO limited maintenance plan.

Figure 1.3  
Anchorage CO Monitoring Site Locations with  
Garden (Active Site) in Red.



### 1.3 Conformity Requirements for CO LMP

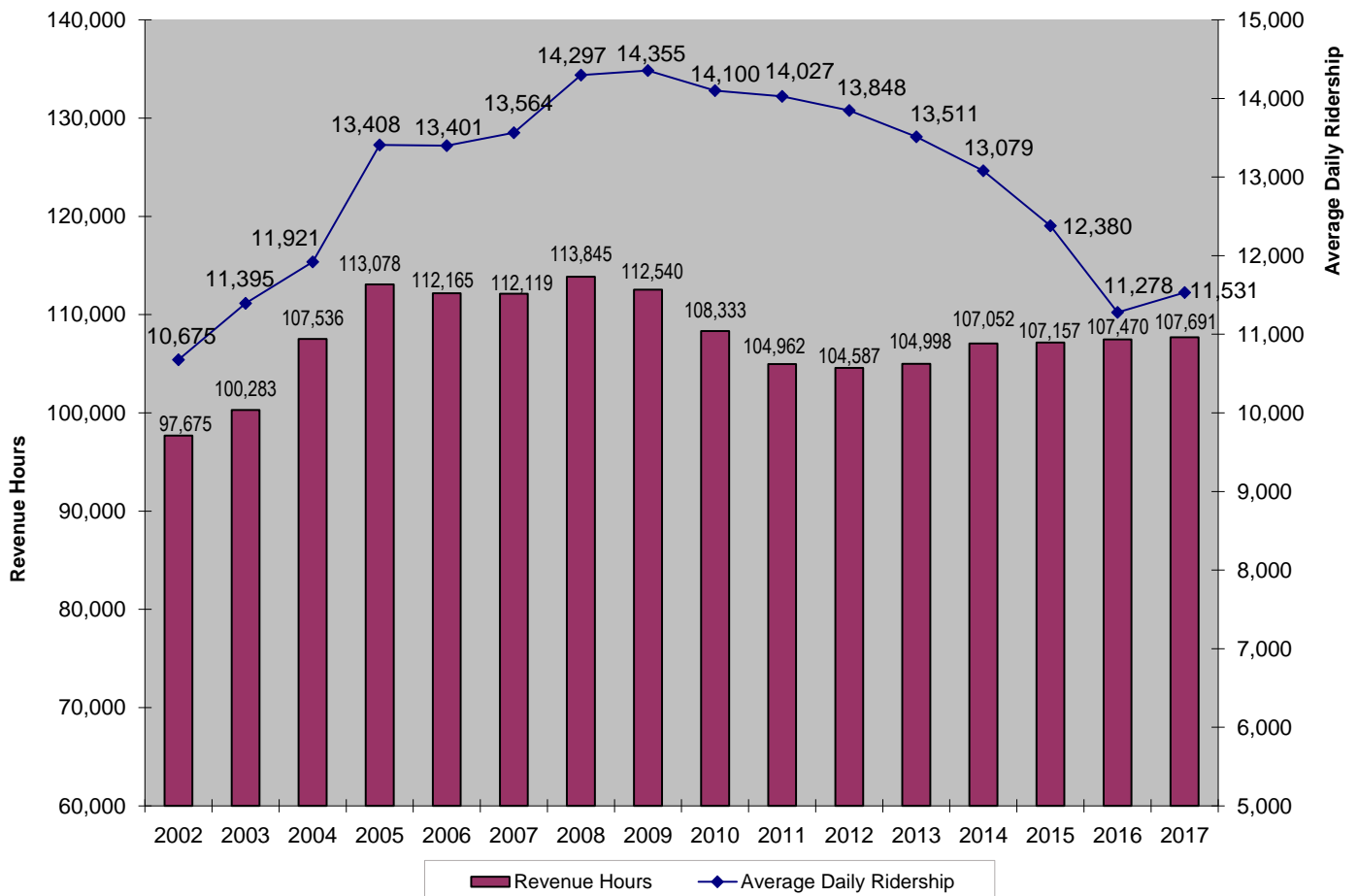
#### 1.3.1 Transit Service

Section 93.110 of the air quality conformity regulations states that the conformity determination for transportation plans must discuss how transit operating policies (including fares and service levels) and assumed transit ridership have changed since the previous transportation plan conformity determination was approved.

On January 1, 2014 Anchorage cash bus fares increased from \$1.75 to \$2.00 and 30-day passes increased from \$55 to \$60; however, at the same time fares for youth, senior and disabled riders dropped to half of the full-fare price. A prior increase in cash fares from \$1.50 to \$1.75 occurred in October 2005. In January 1, 2012, the cost of a monthly pass increased from \$50 to \$55; a day pass increased from \$4 to \$5; a monthly pass for senior/disabled increased from \$15 to \$19.25; and a senior/disabled daily pass increased from \$1.25 to \$1.50.

Figure 1.3 shows how transit service levels, as indicated by weekday revenue hours, have varied between 2002 and 2017. Weekday transit service provided within the Municipality reached a peak in 2008 when 113,845 hours of weekday service were provided. Ridership peaked a year later at 14,355 trips per day. Weekday transit service was cut by 5% between 2008 and 2017. Ridership has dropped by about 20% during the same period.

Figure 1.4  
Trend in Transit Service and Ridership (2002-2017)



### 1.3.2 Transportation Control Measures (TCMs)

In maintenance areas such as the Municipality of Anchorage, priority must be given to the implementation of TCMs included in the SIP. Transportation control measures are defined as any measure that is specifically identified and committed to in the applicable implementation plan or any other measure for the purpose of reducing emissions or concentrations of air pollutants from transportation sources by reducing vehicle use or changing traffic flow or congestion conditions.

Ridesharing, van pooling and transit marketing are the only TCMs identified in CO Maintenance Plan. They are funded in the current Transportation Improvement Program. Although these measures are identified in the Plan, no CO reduction is claimed for these measures.

The van pooling program has increased in popularity over the past decade. The number of vanpoolers in the program nearly tripled from 375 to about 1000 in recent years.

In contrast, the number of registered carpoolers has dropped during the same period. In 2002, there were 419 registered carpoolers among 209 carpools. By 2013, the number of carpoolers dropped to 266 among 127 carpools. It is likely that competition from vanpooling is reducing carpool numbers. Carpools are no longer tracked by Rideshare, aka Share-A-Ride.

It is difficult to distinguish the effect that transit marketing has had on ridership because other factors, such as the price of gasoline, socio-economic influences, and changes in service also affect ridership.

Table 1.2  
Vanpool Program Participation (2002-2014)

<b>Year</b>	<b>Number of Vanpools</b>	<b>Number of Vanpoolers</b>
2005	24	375
2006	41	569
2007	42	589
2008	52	810
2009	52	917
2010	54	923
2011	66	1152
2012	65	992
2013	65	972
2014	65	972
2015	65	842
2016	65	972
2017	60	972

## 1.4 Conclusion regarding Anchorage CO Conformity

This analysis demonstrates that the 2019-2022 Anchorage Transportation Improvement Plan is in conformance with the Alaska State Implementation Plan for air quality and meets conformity requirements outlined in 40 CFR 93 for CO. Furthermore, it has been determined that no element of 2019-2022 TIP will undermine the ability of the Municipality of Anchorage to maintain compliance with the NAAQS for CO.

## PART 2: CONFORMITY ANALYSIS FOR THE EAGLE RIVER PM-10 AREA

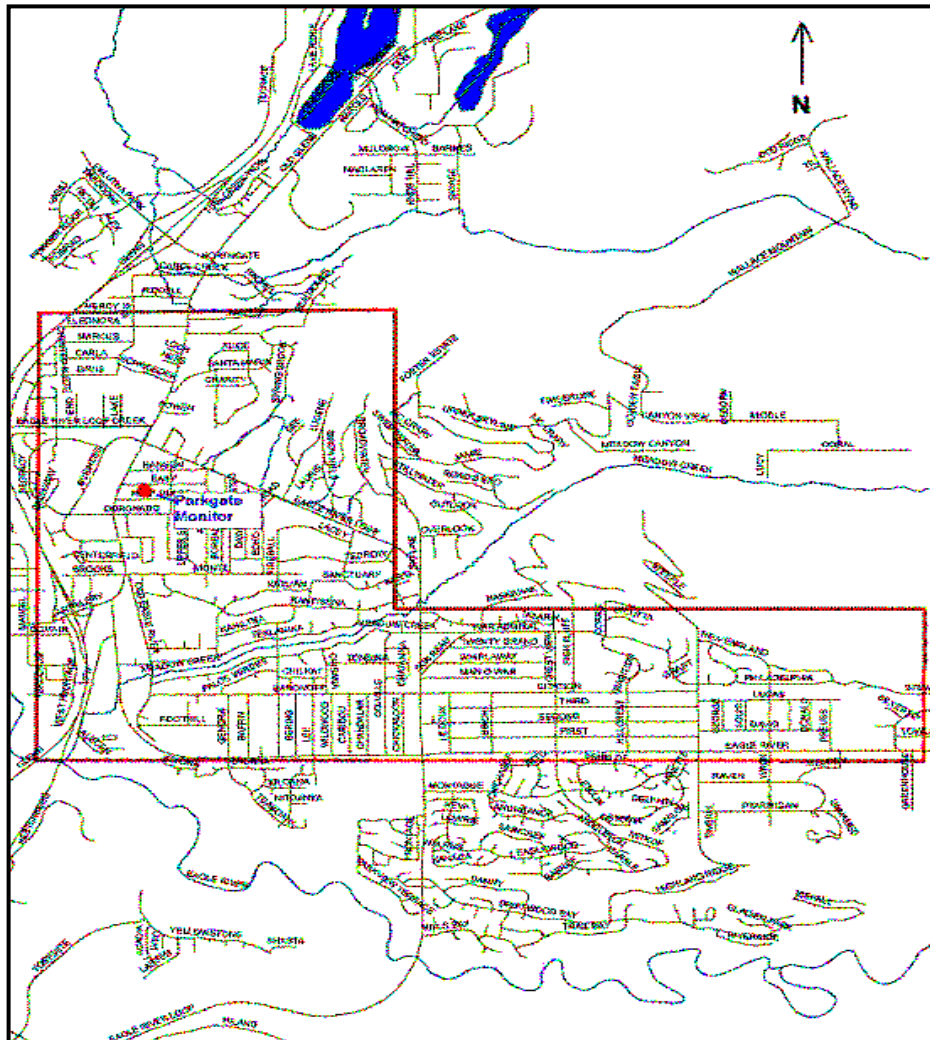
### 2.1 Eagle River PM<sub>10</sub> Attainment Status - Qualification as a Limited Maintenance Area for Conformity Purposes

Between 1985 and 1987 Eagle River frequently violated the NAAQS for PM<sub>10</sub> (particulate matter air pollution with an aerodynamic diameter less than or equal to 10 μm in size). The main source of this pollution was identified as unpaved roads in the area. As a consequence, in 1991 the EPA designated a nine square kilometer area in Eagle River as a moderate nonattainment area for PM<sub>10</sub> and required the submission of an air quality attainment plan to bring the area into compliance with the PM<sub>10</sub> NAAQS.

In 1991, the Municipality of Anchorage and the Alaska Department of Environmental Conservation prepared the *Eagle River PM<sub>10</sub> Control Plan*, which was submitted to the EPA as amendment to the Alaska SIP to address the PM<sub>10</sub> problem in Eagle River. The plan outlined an ambitious road paving program to reduce emissions from this source. The EPA approved the plan as an amendment to the SIP in 1993 (58 FR 43084).

By 1993 most of the 22 miles of unpaved local roads in the 9 km<sup>2</sup> PM<sub>10</sub> problem area were either surfaced with recycled asphalt or paved. By 2007 there were no unpaved local roads within the problem zone.

Figure 2.1  
Eagle River Limited Maintenance Area Boundary with Parkgate Monitoring Site





The road paving and recycled asphalt surfacing program has dramatically reduced PM<sub>10</sub> concentrations in Eagle River. The last violations of the PM<sub>10</sub> NAAQS occurred in 1987.<sup>§</sup>

In October 2010, the EPA made a determination that Eagle River had attained the PM<sub>10</sub> NAAQS (75 FR 64162). However, before Eagle River could be officially re-designated as an attainment area, a maintenance plan had to be submitted to EPA to demonstrate that the air quality control measures in place in Eagle River are sufficient to ensure continued maintenance of the PM<sub>10</sub> NAAQS.

The EPA offers a streamlined process of gaining re-designation to attainment to areas that can demonstrate they have a low risk of violating the PM<sub>10</sub> NAAQS. This is known as the Limited Maintenance Plan (LMP) option. When EPA approves a limited maintenance plan, the agency is concluding that an emissions budget may be treated as essentially non constraining for the length of the maintenance period because it is unreasonable to expect that such an area will experience so much growth in that period that a violation of the PM<sub>10</sub> NAAQS would result.

Nonattainment areas that wish to qualify for this streamlined process must show that: (1) their average design value (DV) over the past five years is below 98 µg/m<sup>3</sup> and therefore have a low probability of violating the NAAQS, and (2) that PM<sub>10</sub> emissions anticipated from growth in motor vehicle travel in the area are unlikely to cause a future violation.\*\* Eagle River met both of these criteria. In September 2010, on behalf of the Municipality of Anchorage, the State submitted the *Eagle River PM<sub>10</sub> Limited Maintenance Plan* to EPA as a proposed amendment to the SIP.

EPA approved the Eagle River PM<sub>10</sub> LMP, effective March 8, 2013 (78 FR 900). Areas that have been designated as “limited maintenance areas” or have had their LMPs approved for conformity purposes have a simplified conformity procedure. This simplified LMP procedure is used in this analysis.

## 2.2 PM<sub>10</sub> LMP Conformity Criteria

Areas with approved LMPs or areas that have had them approved for conformity determinations are not required to perform an emission budget test as long as the area continues to meet the LMP criteria. Areas with an LMP are required to annually re-compute their 5-year average DV to determine whether it is below 98 µg/m<sup>3</sup> and therefore still meets this LMP criterion.†† Table 2.1 shows that the 5-year average DV in Eagle River continues to meet this requirement. The method used to compute these 5-year average DVs is explained in detail in the Appendix of this document.

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<sup>§</sup> PM<sub>10</sub> concentrations have exceeded the 150 µg/m<sup>3</sup> NAAQS (as a 24-hour average) on a number of occasions since 1987, but all of these “exceedances” have been attributed to natural events. These include glacial river dust transported by high winds from the Matanuska River and volcanic ash resulting from the eruption of the Mt. Spurr volcano in August 1992. EPA excludes these events when considering whether an area has met the NAAQS.

\*\* PM<sub>10</sub> LMP guidance is outlined in a memorandum from Lydia Wegman, Director, Air Quality Standards and Strategies Division, EPA, August 9, 2001.

†† This requirement is found in the Wegman PM<sub>10</sub> LMP guidance. Although it is not a requirement of the transportation conformity rule, AMATS agreed to include the Eagle River PM<sub>10</sub> Limited Maintenance Area design value analysis in this conformity determination as an outcome of interagency consultation.

Table 2.1  
5-Year Average Eagle River PM<sub>10</sub> Design Values

5-Year Period	Average DV ( $\mu\text{g}/\text{m}^3$ )
2003-2007	92
2008-2012	81
2013-2017	98
<b>LMP Qualification Criteria</b>	<b><math>\leq 98 \mu\text{g}/\text{m}^3</math></b>

The following conformity requirements apply to LMPs or areas that have had their LMPs approved for conformity purposes:

Criteria

- 93.110            The conformity determination must be based on the latest planning assumptions.
  
- 93.112            Conformity must be determined according to the consultation procedures in this subpart and in the applicable implementation plan, and according to the public involvement procedures established in compliance with 23 CFR Part 450.
  
- 93.113(b)        The transportation plan must provide for the timely implementation of TCMs from the applicable SIP.

As per 40 CFR 93.113(b), the transportation plan must: (1) provide for timely implementation of the TCMs in the applicable SIP; and (2) nothing in the transportation plan should interfere with a TCM in the SIP. Both these conditions have been met. When the *Eagle River PM<sub>10</sub> Control Plan* was submitted to EPA in 1991, 6.6 miles of the 22 miles of unpaved road in the problem zone had already been paved or surfaced with recycled asphalt product (RAP). The plan assumed that an additional 8.6 miles of paving or recycled asphalt surfacing would be completed by 1993. This was accomplished; by 1993 over 15 miles of the 22 miles of unpaved roads in the problem zone had been paved or RAP-treated. By 2007, there were no unpaved roads in the problem zone.

The *Eagle River PM<sub>10</sub> Control Plan* also called for changes in winter traction sanding practices to reduce PM-10 emissions during the spring break-up period. These included reductions in the amount applied and new specifications that limited the silt content in the sand to 2% or less. These measures were implemented in 1989 and continue to be implemented today. The fact that Eagle River has been in compliance with the NAAQS since 1989 attests to the effectiveness of the implemented control strategies. There are no projects or constraints in the 2019-2022 Anchorage Transportation Improvement Plan that would interfere with the continued implementation of these TCMs.

**2.3 Conclusion regarding Eagle River PM-10 Conformity**

This analysis demonstrates that the 2019-2022 Anchorage Transportation Improvement Plan is in conformance with the Alaska State Implementation Plan for air quality and meets conformity requirements outlined in 40 CFR 93 for PM<sub>10</sub>. Furthermore, it has been determined that no element of the 2019-2022 TIP will undermine the ability for Eagle River to maintain compliance with the PM<sub>10</sub> NAAQS.

## **APPENDIX**

### **Computation of PM<sub>10</sub> Design Value Concentrations for Eagle River**



## Computation of PM<sub>10</sub> Design Value Concentrations for Eagle River

Computational methods for determining the 24-hour design value (DV) are outlined in the *PM<sub>10</sub> SIP Development Guideline (EPA-450/2-86-001, June 1987)*. The empirical frequency distribution approach (see Section 6.3.3 of the guideline) was used to determine the site-specific PM<sub>10</sub> concentration that would be expected to be exceeded at a frequency of once every 365 days.

The empirical frequency distribution method was used to compute the Eagle River PM<sub>10</sub> DV for the most recent five-year period, 2013-2017, in accordance with EPA's Wegman memo guidance to determine qualification for the PM<sub>10</sub> limited maintenance plan option (Lydia Wegman, Director EPA-AQSSD, Aug 9, 2001). During this period, the number of valid 24-hour average PM<sub>10</sub> measurements (n) was 1737. These concentrations were arranged in order of magnitude and were assigned rank where the highest concentration was rank = 1, and lowest was rank = 1737. An abbreviated version of this table is shown below. During this period, the lowest PM<sub>10</sub> concentration measured was 1 µg/m<sup>3</sup> (rank = 1737); the highest was 174 µg/m<sup>3</sup> (rank = 1).

Table 1

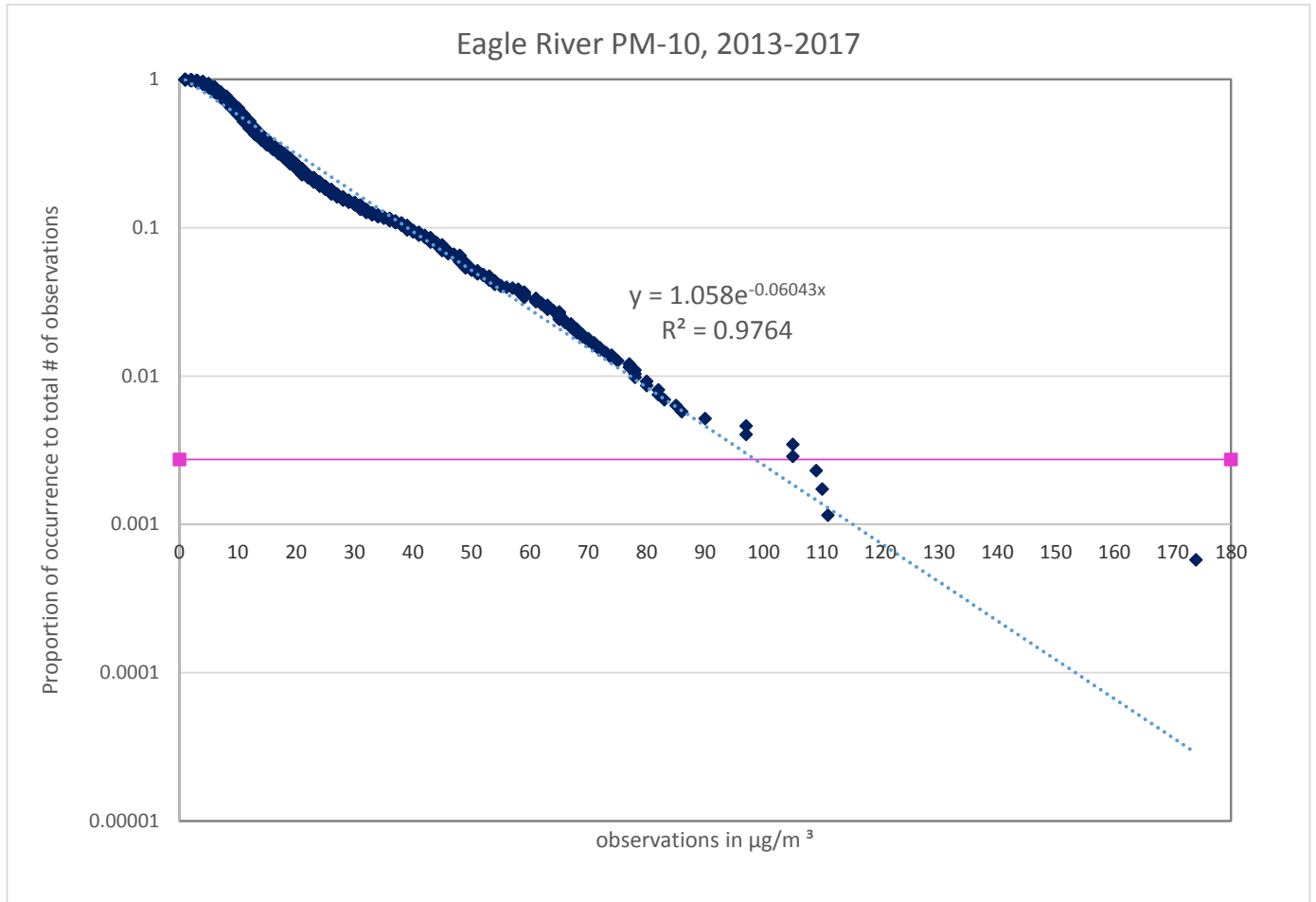
Date	PM-10 (µg/m <sup>3</sup> )	<i>i</i> rank	$P = i/n$ Proportion of observations with equal or higher concentration
01/15/2013	174	1	0.00057
02/11/2014	111	2	0.00115
03/24/2016	110	3	0.00172
02/01/2014	109	4	0.00230
11/07/2014	105	5	0.00287
02/01/2014	105	6	0.00345
11/07/2014	97	7	0.00402
02/07/2014	97	8	0.00460
02/06/2015	90	9	0.005181
03/02/2016	86	10	0.005757
11/23/2013	1	1733	0.99769
10/15/2013	1	1734	0.99827
02/10/2013	1	1735	0.99884
01/13/2013	1	1736	0.99942
01/01/2013	1	1737	1

The Eagle River PM<sub>10</sub> Design Value for comparison to the PM<sub>10</sub> LMP eligibility criteria was determined from the empirical frequency plot of 24-hour PM<sub>10</sub> data, and was calculated as the concentration that corresponds to  $P = 1/365$ . This resulting concentration represents the highest expected concentration during a one-year or 365-day period. The design value concentration can be computed directly from the equation of the best-fit line as follows:

In this case:  $y = 1/365 = 0.00274 = 1.058 e^{-0.06043x}$   $x = 98.6 \mu\text{g}/\text{m}^3$

Figure 1

Computation of 2013-2017 DV for Eagle River by Empirical Frequency Distribution Method



Imputing the value of 0.00274 (equivalent to 1/365) into the best-fit line equation and solving for the corresponding concentration, yields a  $\text{PM}_{10}$  concentration of  $98.6 \mu\text{g}/\text{m}^3$ .

Per EPA data handling rules for  $\text{PM}_{10}$  data, decimal values are truncated. Hence, the Eagle River  $\text{PM}_{10}$  DV for 2013-2017 is properly truncated to  $98 \mu\text{g}/\text{m}^3$ .

This design value is compliant with EPA's primary,  $\text{PM}_{10}$  LMP Qualification Criteria:  $\leq 98 \mu\text{g}/\text{m}^3$ .